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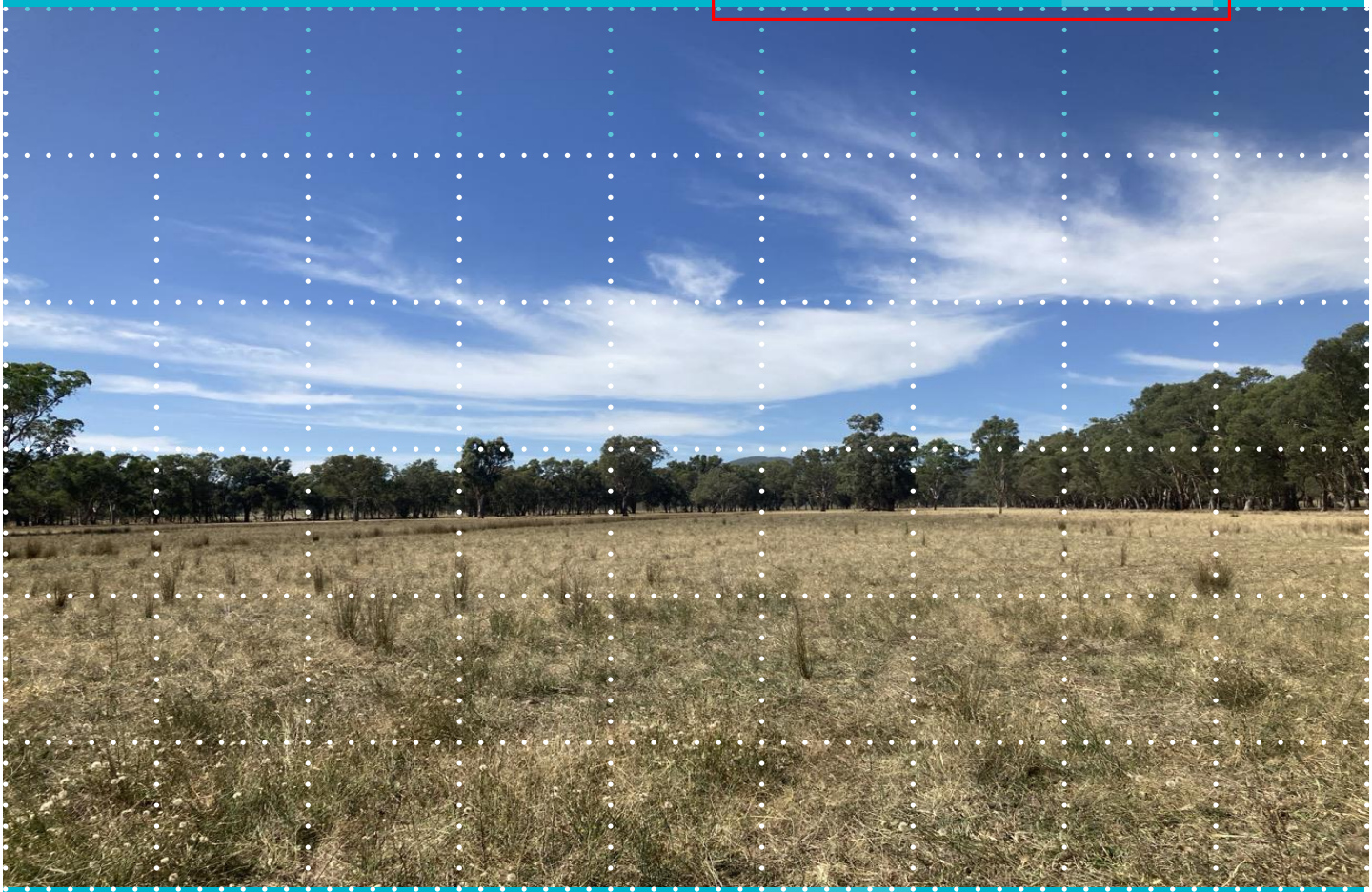
Final Report

Bushfire Risk Assessment for the Meadow Creek Solar Farm: 1033 Oxley-Meadow Creek Road, Meadow Creek, Victoria

Prepared for

Urbis Pty Ltd

September 2024



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DOCUMENT CONTROL

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Project manager	Cat Stephenson (Associate Bushfire Consultant/Botanist)
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Council	Wangaratta City Council

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Ecology and Heritage Partners acknowledge the Traditional Owners of the country we live and work on, and we pay our respect to Elders past, present and emerging.

CONTENTS

1 INTRODUCTION

1.1 Background

Ecology and Heritage were engaged by Urbis Pty Ltd to prepare a Bushfire Risk Assessment for a solar farm at 1033 Oxley-Meadow Creek Road, Meadow Creek. The development includes solar panels and associated infrastructure, a Battery Energy Storage System (BESS), terminal substation, collector substation, overhead transmission lines from the terminal substation to the collector substation, BESS site office, carparking, internal road network, site access points and planted vegetation screening.

The purpose of this report is to undertake a bushfire risk assessment of the local and broader landscape and address the legislative implications associated with the proposal against Clause 13.02-1S Bushfire. The following policies and guidelines were also considered as part of this report:

- Clause 44.06 Bushfire Management Overlay (BMO);
- Clause 53.02 Bushfire Planning;
- Australian Standard 3959:2018 Construction of buildings in bushfire prone areas (AS 3959:2018) (Standards Australia 2020); and
- Design Guidelines and Model Requirements for Renewable Energy Facilities (Design Guidelines) (Country Fire Authority [CFA] 2023).

1.2 Study Area

The study area is approximately 594.07 hectares in area, which includes 566.15 hectares as part of the solar farm site (i.e. 1033 Oxley-Meadow Creek Road, Meadow Creek) and 27.92 hectares immediately north of the solar farm site that contains the terminal substation and overhead transmission lines (i.e. 193 Docker-Carboor Road, Docker [SPI 2-42\PP3359] and Docker-Carboor Road, Milawa [SPIs 1\TP753880 and 3\TP753880]). The study area is approximately 20 kilometres south-east of Wangaratta and 190 kilometres north-east of Melbourne. It is bound by Whorouly-Bobinawarrah Road to the north, Allans Lane to the east, agricultural land to the south and Oxley-Meadow Creek Road to the west (Attachment 1).

The study area is generally flat and largely comprises agricultural grazing land, with some dams, densely planted linear treed strips and scattered trees throughout. The study area is within the Wangaratta City Council municipality, zoned Farming Zone (FZ) and covered by the Bushfire Prone Area (BPA) (Department of Transport and Planning [DTP] 2023).

The study area was assessed on 29 February and 1 March 2024.

2 RESPONSE TO CLAUSE 13.02-1S

Clause 13.02-1S has the objective to '*strengthen the resilience of settlements and communities to bushfire through risk-based planning that prioritises the protection of human life*' (p1). This clause applies to land in the BPA, Bushfire Management Overlay (BMO) and/or proposed to be used or developed in a way that may create or increase bushfire hazard. The study area falls within the BPA category.

Clause 13.02-1S contains five key strategies to meet the objective, which are:

- Protection of human life;
- Bushfire hazard identification and assessment;
- Settlement planning;
- Areas of biodiversity conservation value; and
- Uses and development in a Bushfire Prone Area.

A detailed assessment against each of the strategies is provided below.

The bushfire hazard risk is assessed at five different levels (Attachments 2 to 6), with a Bushfire Management Plan provided in Attachment 7.

2.1 Protection of Human Life Strategy

These strategies require that the priority be given to the protection of human life.

2.1.1 Prioritising the protection of human life over all other policy considerations

The protection of human life is a priority for this development, with its inclusion of a large BESS area, collector substation, terminal substation and overhead transmission lines increasing the emphasis on rigorous safety measures. Measures that prioritise the protection of human life have been considered and addressed through several policies, being:

- Clause 13.02-1S Bushfire;
- Clause 53.02 Bushfire Planning and associated Clause 44.06 Bushfire Management Overlay;
- AS 3959:2018 (Standards Australia 2020);
- Design Guidelines (CFA 2023);
- *Electricity Safety Act* 1998; and
- *Electrical Safety (Bushfire Mitigation) Regulations2023.*

2.1.2 *Directing population growth and development to low risk locations and ensuring the availability of, and safe access to, areas where human life can be better protected from the effects of bushfire*

The development is in a rural agricultural landscape surrounded by pasture and crops for several kilometres, which is considered a low risk location due to the minimal treed vegetation (Attachment 3).

The study area is surrounded by roads on three sides, which allows occupants to drive away from the direction of a grassfire using the local road network.

2.1.3 *Reducing the vulnerability of communities to bushfire through the consideration of bushfire risk in decision making at all stages of the planning process*

Clause 13.02-1S is a state-wide planning policy that provides an opportunity to consider the bushfire risk at a strategic level in the planning process. This development addresses the risk by ensuring separation distances, vegetation management, emergency access/egress and emergency static water supply management measures are implemented.

The CFA provides four principles regarding settlement planning decisions, which should:

- '*Direct development to locations of lower bushfire risk;*
- *Carefully consider development in locations where there is significant bushfire risk that cannot be avoided;*
- *Avoid development in locations of extreme bushfire risk; and,*
- *Avoid development in areas where planned bushfire protection measures may be incompatible with other environmental objectives*' (CFA 2015, p.4).

The proposal is considered to apply all four principles by building in an agricultural paddock, with similar paddocks present in the broader landscape that do not pose an extreme bushfire risk. There are no incompatible environmental implications, as a large majority of the native trees are being retained and the infrastructure developed around them.

2.2 Bushfire Hazard and Identification Assessment Strategies

These strategies require the bushfire hazard be identified and an appropriate risk assessment be undertaken.

2.2.1 *Applying the best available science to identify vegetation, topography and climatic conditions that create a bushfire hazard*

This report identifies the bushfire hazard and applies the standard site assessment methodology used in AS 3959:2018 (Standards Australia 2020) to determine separation distances, which is applied to developments in the BPA and BMO and is based on the best available science. The bushfire modelling inputs that form the basis for this methodology factor in vegetation type (e.g. Woodland, Grassland), potential fuel-loads in a long-unburnt vegetation community, weather conditions on higher bushfire

risk days (e.g. wind speed, fuel moisture content, days since last rainfall) and the effect of slope gradient on the way fire travels through unmanaged vegetation.

The desktop assessment using GIS software and site assessment process have determined the most appropriate classified vegetation type and slope category in relation to the separation distances between areas of treed vegetation within the study area and solar panels and other infrastructure (Attachment 6; Attachment 7).

2.2.2 *Considering the best available information about bushfire hazard including the map of designated bushfire prone areas prepared under the Building Act 1993 or regulations made under the Act*

The BPA applies to the entire study area and wider area due to the presence of pastures (i.e. Grassland) across the landscape. The closest area not covered by the BPA is approximately 4.6 kilometres north of the study area within a vineyard in Milawa.

2.2.3 *Applying the Bushfire Management Overlay to areas where the extent of vegetation can create an extreme bushfire hazard*

The BMO is present within a small part of the study area, and does not cover any proposed infrastructure, but does cover some of the proposed transmission easement (Figure 7A). Based on a comparison of aerial photography (Figure 1), the vegetation linked to the BMO adjacent to the study area, and further away from the study area, has been removed. As such, the study area is not considered to contain an extreme fire hazard and/or the proposal is not considered to create or increase an extreme fire hazard, and the BMO is not considered further.

Figure 1 The vegetation associated with the BMO as mapped on VicPlan in 2018 on the left, and as observed on Google Earth in 2024 on the right. The classified high threat vegetation associated with the BMO, as of 2024, has been removed.

2.2.4 *Considering and assessing the bushfire hazard on the basis of:*

- *Landscape conditions – meaning the conditions in the landscape within 20 kilometres from a site;*
- *Local conditions – meaning the conditions in the area within approximately 1 kilometre from a site;*

- *Neighbourhood conditions – meaning conditions in the area within 400 metres of a site; and*
- *The site for the development*

Bushfire Hazard Landscape Scale Assessment

The landscape condition within 20 kilometres of the study area is characterised predominantly by agricultural properties (Attachment 2). Large areas of treed vegetation exist approximately five kilometres south-east and six kilometres south of the study area. Wangaratta is the closest major urban area, which is located approximately 18 kilometres north-west of the study area.

The most likely directions of bushfire attack on severe fire weather days in Victoria are from the north-west or south-west. At the landscape-scale, both directions are dominated by cleared agricultural land. A grassfire could ignite through natural or anthropogenic means and travel towards the study area if the wind direction facilitated it. There are, however, landscape factors that would likely reduce the amount of fuel available and may make it difficult for a fire to build momentum to the severity required to be a significant threat. These include crops being periodically harvested and farm animals grazing the paddocks.

No bushfires have occurred within five kilometres of the study area for at least 10 years. Several road-side planned burns have occurred within five kilometres of the study area since 2021, with one of these being along the study area's northern boundary (Attachment 3). There are no neighbourhood safer places within five kilometres of the study area.

Bushfire Hazard Local and Neighbourhood Bushfire Assessment

The local (one kilometre) (Attachment 4) and neighbourhood scale (400 metre) (Attachment 5) bushfire assessments illustrate the same landscape, being rural agricultural paddocks. These scales clearly show that a grassfire can approach the study area through adjoining paddocks, however the severity of a fire would be highly dependent on the available fuel at the time.

Site Assessment

The bushfire hazard site assessment is undertaken in line with the Method 1 site assessment methodology in AS 3959:2018 (Section 2.2, Standards Australia 2020) and describes the bushfire hazard within the development area and 100 metres of it through vegetation and slope classification, which are used to determine the commensurate separation distance between unmanaged vegetation and development assets.

The existing treed corridors within the study area would be classified as Forest as per the site assessment methodology in AS 3959:2018 (Standards Australia 2020) given their canopies projective foliage cover is greater than 30% (Plate 1). The topography under these treed corridors is flat, with the slope under the Forest therefore being classified as Upslope/Flat land.

Treed vegetation also exists along the roadsides adjoining the study area's northern and eastern boundaries and as small pockets on neighbouring private properties to the west, which have been classified as Forest or Woodland depending on their canopy densities (Plate 2) (Attachment 6). The land is flat under these areas, resulting in an Upslope/Flat land classification.

All other areas within the study area and 100m assessment area have been classified as Grassland in the form of paddocks with scattered trees and Upslope/Flat land (Plate 3; Plate 4).

Grassland within the whole study area containing the solar panels, BESS and associated infrastructure will be managed in a low threat state (i.e. maintained below 100 millimetres) during the Fire Danger Period [FDP] for as long as the solar farm is operational. Sheep will continue to graze the paddocks. Where sheep have not reduced the grass height during the FDP to at or below 100 millimetres, a slasher will be used. The treed corridors within the study area will be fenced off to exclude sheep, with their purpose being to act as a wildlife corridor. Gates will be incorporated into the fences so a slasher can maintain the grass under these trees during the FDP. A five-metre-wide vegetation screening will be incorporated into the design around the boundary of the study area containing the solar panels, which adjoins an approximately 20-metre-wide treed road reserve along some of its boundaries. The wildlife corridors are approximately 30 metres wide.

AS 3959:2018 (Standards Australia 2020) uses the vegetation and slope classifications to produce a resultant separation distance in which the development is set back from unmanaged vegetation. However, in this case the fire break distances in the Design Guidelines (CFA 2023) have been applied since they relate to renewable energy developments. The Design Guidelines (CFA 2023) specify that fire breaks are required around the perimeter of a development, or from the boundary of vegetation screening inside the property boundary, and around major buildings and structures such as a BESS and substations. A fire break width of 10 metres is applied where the width of screening and other treed vegetation is up to 15 metres for closed density situations and up to 20 metres for open density situations as defined in AS 3959:2018 (Standards Australia 2020). While the width of the combined perimeter vegetation screening and adjoining road reserve where it contains treed vegetation, and the internal wildlife corridors, are larger than these 15/20 metre widths, still applying a 10-metre-wide fire break between the vegetation screening and internal wildlife corridors, and solar farm infrastructure is considered appropriate given the low bushfire risk at the site and landscape level. That is, Grassland within the study area containing the solar panels and associated infrastructure will be managed in a low threat state, including the grass within the wildlife corridor. Furthermore, the vegetation screening (and adjoining road reserves) and wildlife corridors are not connected to large treed areas that would act as a conduit for severe bushfires to approach and enter the study area. Correspondence from the CFA has confirmed that applying a minimum 10-metre fire break around the vegetation screening and wildlife corridor is satisfactory from a bushfire management perspective (Jennifer Blyth, CFA, email dated 10 May 2024). The 10-metre fire break will also form a perimeter around the BESS, terminal substation and collector substation (Attachment 7).

2.2.5 *Consulting with emergency management agencies and the relevant fire authority early in the process to receive recommendations and implement appropriate bushfire protection measures*

The client is currently liaising with Council and the CFA during the preliminary stages of the development regarding vegetation management, water and access requirements and how best to implement mitigation measures into the design. This dialogue will continue to ensure that emergency

management agencies are aware of the development's progress and are able to discuss certain design aspects and provide guidance where necessary.

2.2.6 *Ensuring that strategic planning documents, planning scheme amendments, planning permit applications and development plan approvals properly assess the bushfire risk and include appropriate bushfire protection measures*

Clause 13.02-1S, Clause 44.06, Clause 53.02, DEECA advisory note (DELWP 2018), CFA guidance notes (CFA 2015, 2023) and the building regulations (i.e. AS 3959:2018) regarding bushfire matters have been referred to when assessing the bushfire risk. The standards and requirements provided in these documents have been addressed through several bushfire mitigation measures.

2.2.7 *Not approving development where a landowner or proponent has not satisfactorily demonstrated that the relevant policies have been addressed, performance measures satisfied or bushfire protection measures can be adequately implemented*

Bushfire protection measures can be adequately implemented as part of the development's design to meet the requirements of Clause 13.02-1S and Design Guidelines (CFA 2023). The Design Guidelines (CFA 2023) cover several general solar farm design requirements as well as more technical aspects for the structures/facilities. This report addresses the general design and protection requirements, with the technical aspects being incorporated during the detailed design stage by the relevant disciplines (e.g. engineers, electricians).

The CFA specifies four situations where development should not proceed, which include:

- '*Isolated settlements where the size and/or configuration of the settlements will be insufficient to modify fire behaviour and provide protection from a bushfire;*
- *Where bushfire protection measures will not reduce the risk to an acceptable level;*
- *Where evacuation (access) is severely restricted; and*
- *Where the extent and potential impact of required bushfire protection measures may be incompatible with other environmental objectives or issues, e.g. vegetation protection, land subject to erosion or landslip.*' (CFA 2015, pp.5-6)

None of these criteria apply to the study area.

2.3 Settlement Planning Strategies

These strategies plan to strengthen the resilience of settlements and communities and prioritise protection of human life.

2.3.1 *Directing population growth and development to low risk locations, being those locations assessed as having a radiant heat flux of less than 12.5 kilowatts/square metre under AS 3959:2018 Construction of Buildings in Bushfire-prone Areas (Standards Australia 2018)*

The development's location is low risk due to it being in an agricultural setting. There are linear strips of treed vegetation within the study area that will become wildlife corridors and perimeter planted screening, with the solar panels and other infrastructure being separated from these linear strips by a minimum of 10 metres.

The Design Guidelines (CFA 2023, p14) define the attributes of low risk locations, which are:

- '*Grassland;*
- *No continuous other vegetation types within one to 20 kilometres of the study area;*
- *Generally flat topography, some undulation may be present;*
- *Slopes are less than five degrees;*
- *Good road access with multiple routes available to and from the project site; and*
- *The BMO applied to the study area, however, the high threat vegetation associated with this layer has been removed as of 2024.*
- *No Land Subject to Inundation Overlay applies*.'

All these attributes apply to the study area.

2.3.2 *Ensuring the availability, and safe access to, areas assessed as a BAL-LOW rating under AS 3959:2018 Construction of Buildings in Bushfire-prone Areas (Standards Australia 2018) where human life can be better protected from the effects of bushfire*

Areas assessed as a BAL-LOW rating are positioned more than 50 metres from vegetation classified as Grassland and more than 100 metres from any other classified vegetation type. The land within this 50/100-metre distance must contain non-vegetated areas or low threat vegetation. Non-vegetated areas such as buildings, roads, and carparks, and low threat vegetation such as managed grass are considered part of a landscape that would meet the BAL-LOW criteria (Standards Australia 2020).

Occupants could move into the collector substation or BESS area by more than 50 metres to be separated from the surrounding grass, however these areas also pose a potential fire risk. The safest option would therefore be to leave the site and travel in the direction away from a fire.

2.3.3 *Ensuring the bushfire risk to existing and future residents, property and community infrastructure will not increase as a result of future land use and development*

The bushfire risk is not expected to increase as a result of the development due to several mitigation and safety measures that are intrinsically apart of a solar farm development. These include the provision of fire breaks between infrastructure and treed linear strips and stringent safety controls/measures for the BESS, substations and overhead powerlines.

The study area is surrounded by agricultural paddocks and crops for several kilometres, with farm buildings sparsely scattered throughout the landscape. Given the lack of people and buildings in the wider landscape, the bushfire risk to existing and future residents, property and community infrastructure is extremely low. This situation will not change in the foreseeable future, as the study area and wider landscape are zoned Farming Zone, which does not allow urban-type residential development.

2.3.4 *Achieving no net increase in risk to existing and future residents, property and community infrastructure, through the implementation of bushfire protection measures and where possible reducing bushfire risk overall*

The development will not increase the risk to existing and future residents, property and community infrastructure given several bushfire mitigation measures will be put in place, including;

- Minimum 10-metre-wide fire breaks around the planted perimeter screening, wildlife corridors, BESS and substations;
- Managed grass within the study area containing the solar panels and associated infrastructure;
- 280,000 litre static water supply for the BESS;
- 45,000 litre static water supply tanks at each site access point; and
- Compliant access roads and associated passing bays.

2.3.5 *Assessing and addressing the bushfire hazard posed to the settlement and the likely bushfire behaviour it will produce at a landscape, settlement, local, neighbourhood and site scale, including the potential for neighbourhood-scale destruction*

This report addresses the bushfire hazard posed to the study area at a range of scales in Section 2.2.4.

There is potential for a large-scale fire to travel across the landscape through the agricultural pastures up to the study area, however the available fuel in these pastures and presence of roads across the landscape would determine a fire's severity. Several bushfire measures have been incorporated into the future development of the study area that would mitigate the potential impacts of fires, with some of these features discussed in Section 2.3.5.

2.3.6 *Assessing alternative low risk locations for settlement growth on a regional, municipal, settlement, local and neighbourhood basis*

No alternative low risk locations have been assessed as part of this proposal as the proponent is managing the development of these properties only. The study area is already considered a low risk location due to the dominance of agricultural pastures within the study area and in the wider landscape.

2.3.7 *Not approving any strategic planning document, local planning policy, or planning scheme amendment that will result in the introduction or intensification of development in an area that has, or will on completion have, more than a BAL-12.5 rating under AS 3959:2018 Construction of Buildings in Bushfire-prone Areas (Standards Australia 2018)*

Not applicable – the study area is for a solar farm and does not require or include a strategic planning document, local planning policy or planning scheme amendment.

2.4 Areas of Biodiversity Conservation Value Strategy

This strategy directs growth away from unacceptable biodiversity impacts.

2.4.1 *Ensure settlement growth and development approvals can implement bushfire protection measures without unacceptable biodiversity impacts by discouraging settlement growth and development in bushfire affected areas that are of high biodiversity conservation value*

In addition to the eucalypts within the retained wildlife corridor, there are many scattered native mature eucalypts within the study area (Plate 1; Plate 4), with the solar farm being deliberately designed to avoid a large majority of these. These retained eucalypts provide nesting, roosting and foraging habitat for local native fauna species, including birds, microbats, reptiles and insects.

2.5 Use and Development Control in a Bushfire Prone Area Strategy

These strategies require certain developments in the BPA to consider the bushfire risk and potential impacts.

2.5.1 *In a bushfire prone area designated in accordance with regulations made under the Building Act 1993, bushfire risk should be considered when assessing planning applications for the following uses and development:*

- *Subdivisions of more than 10 lots.*
- *Accommodation*
- *Child care centre*
- *Education centre*
- *Emergency services facility*
- *Hospital*
- *Indoor recreational facility*
- *Major sports and recreation facility*
- *Place of assembly*
- *Any application for development that will result in people congregating in large numbers*

Not applicable – the development does not fall into any of these categories.

2.5.2 *When assessing a planning permit application for the above uses and development:*

- *Consider the risk of bushfire to people, property and community infrastructure*
- *Require the implementation of appropriate bushfire protection measures to address the identified bushfire risk*
- *Ensure new development can implement bushfire protection measures without unacceptable biodiversity impacts*

These considerations have been discussed throughout Section 2. The study area is in a rural agricultural landscape with very few buildings or community infrastructure for several kilometres. Appropriate fire protection measures have been implemented as part of the development's design to meet the requirements of Clause 13.02-1S and the Design Guidelines (CFA 2023). There are not expected to be unacceptable biodiversity impacts since the solar farm has been designed to retain a large majority of existing scattered native trees and linear strips of native vegetation.

3 CONCLUSION

This report has assessed the bushfire hazard within the study area and in the wider landscape in accordance with Clause 13.02-1S of the Wangaratta Planning Scheme and the Design Guidelines (CFA 2023).

The wider landscape is characterised by agricultural land and sparsely scattered rural dwellings. There is the potential for a landscape-scale grassfire through the surrounding agricultural properties, however, factors that would likely reduce the amount of fuel available and may make it difficult for a fire to build momentum to the severity required to be a significant threat include crops being periodically harvested and farm animals grazing the paddocks.

Several bushfire mitigation measures will be put in place, including;

- Minimum 10-metre-wide fire breaks around the planted perimeter screening, wildlife corridors, BESS and substations;
- Managed Grassland within the study area containing the solar panels and associated infrastructure;
- 576,000 litre static water supply for the BESS;
- 45,000 litre static water supply tanks at each site access point; and,
- Compliant access roads and associated passing bays.

4 SITE PHOTOS

Plate 1. Forest vegetation within the wildlife corridors within the study area (Ecology and Heritage Partners Pty Ltd 29/02/2024).

Plate 2. Woodland vegetation along the Docker-Carboor Road reserve (Ecology and Heritage Partners Pty Ltd 29/02/2024).

Plate 3. Grassland vegetation dominates the study area (Ecology and Heritage Partners Pty Ltd 01/03/2024).

Plate 4. Scattered eucalypts within the Grassland vegetation (Ecology and Heritage Partners Pty Ltd 01/03/2024).

REFERENCES

CFA 2015. *FSG LUP 008 Land Use Planning: Strategic Land Use Planning - Bushfire*. Country Fire Authority, Burwood East, Victoria.

CFA 2023. *Design Guidelines and Model Requirements for Renewable Energy Facilities v4*. August 2023. Country Fire Authority, Burwood East, Victoria.

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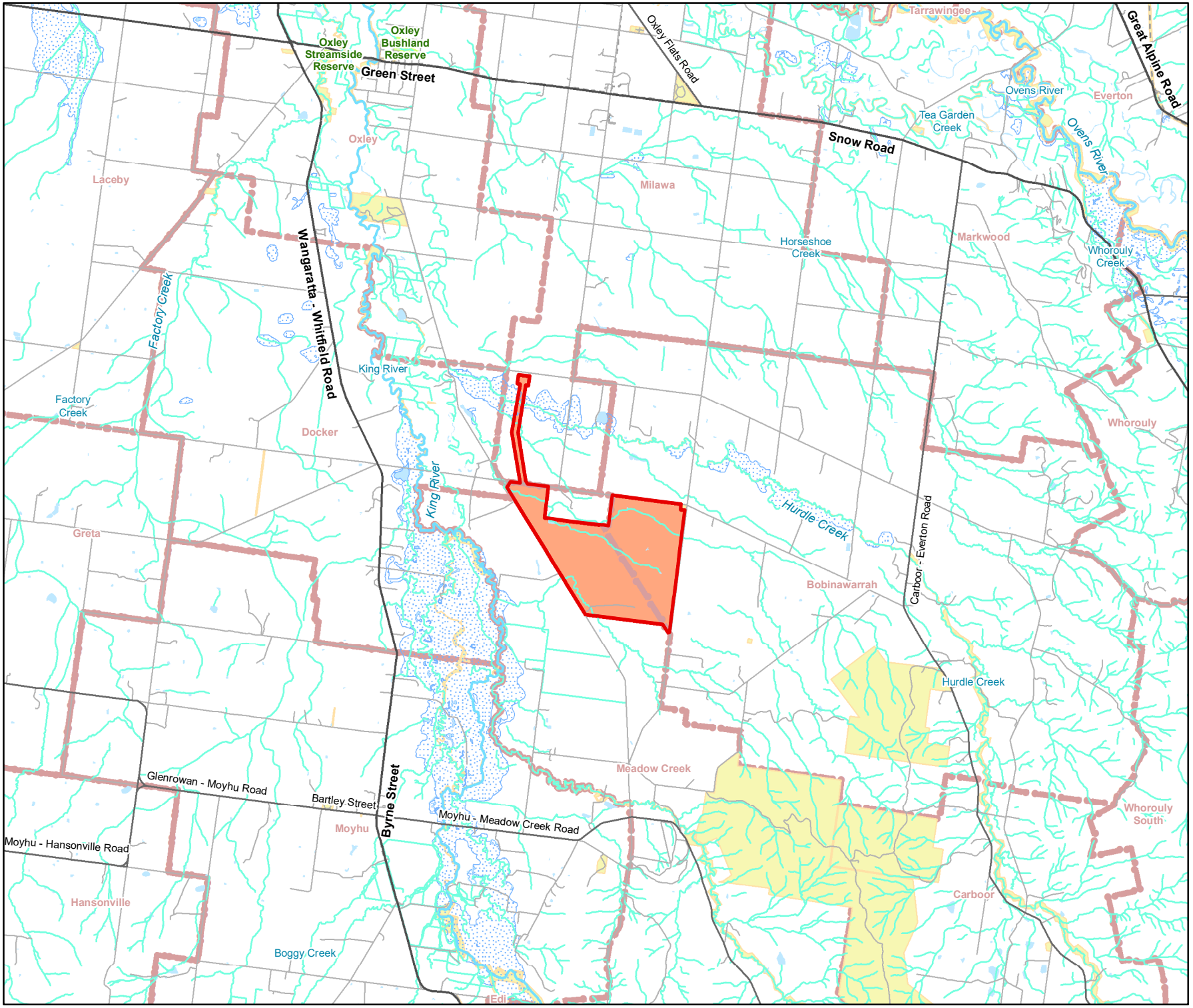
ATTACHMENTS 1 TO 7



Legend

- Study Area
- Major Road
- Collector Road
- Minor Road
- Proposed Road
- Minor Watercourse
- Major Watercourse
- Permanent Waterbody
- Land Subject To Inundation
- Parks and Reserves
- Crown Land
- Localities

Attachment 1

Location of the study area

Meadow Creek Solar Farm

N

0 1,500 3,000

Metres

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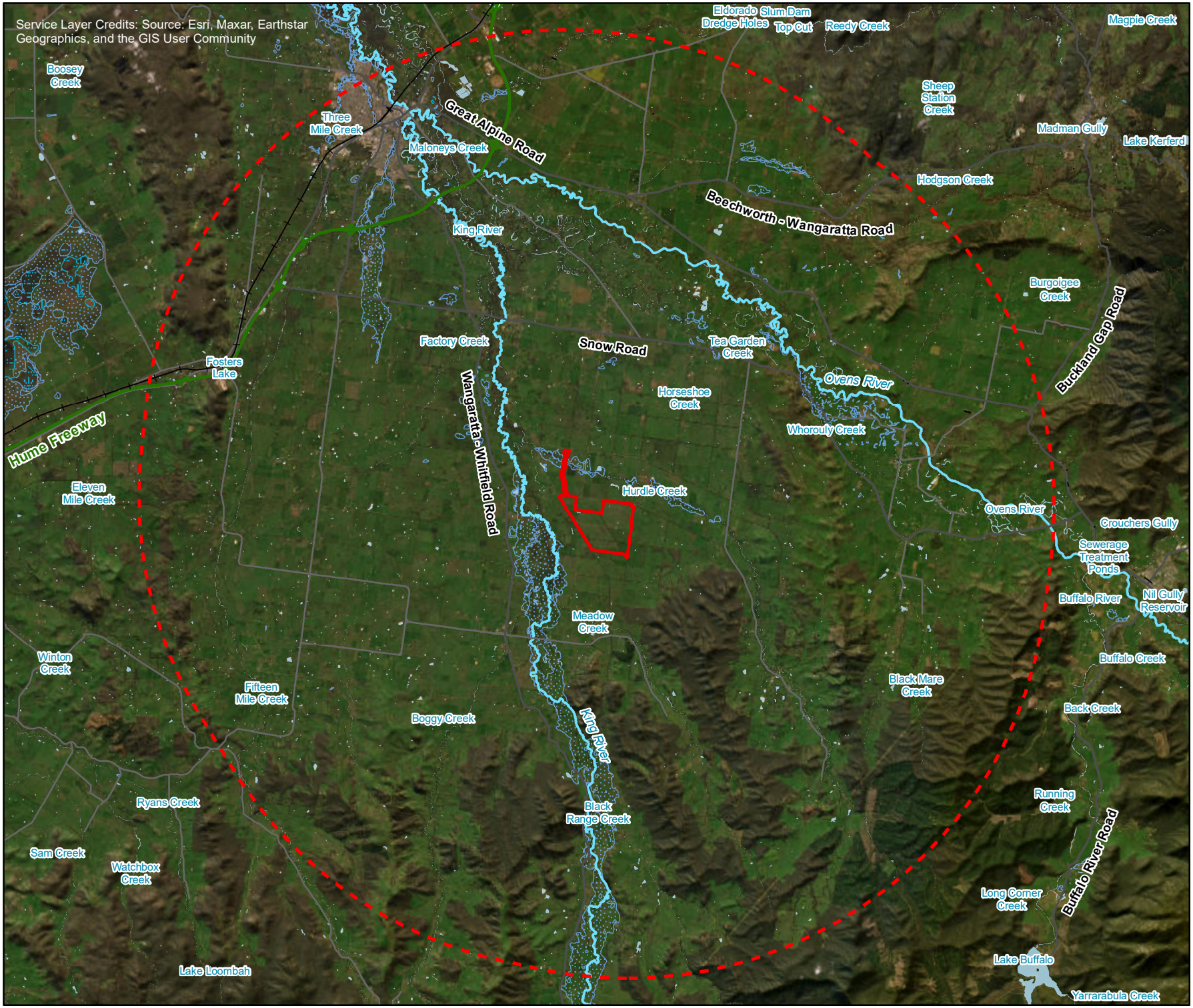
17998_1_StudyArea_G20 8/05/2024 mrashidi



Legend

- Study Area
- 20km Landscape Assessment Zone
- Freeway
- Major Road
- Collector Road
- Major Watercourse
- Permanent Waterbody
- Land Subject To Inundation
- Wetland/Swamp

Attachment 2

Bushfire Hazard Landscape Assessment

Meadows Creek Solar Farm

N

0 3,000 6,000

Metres

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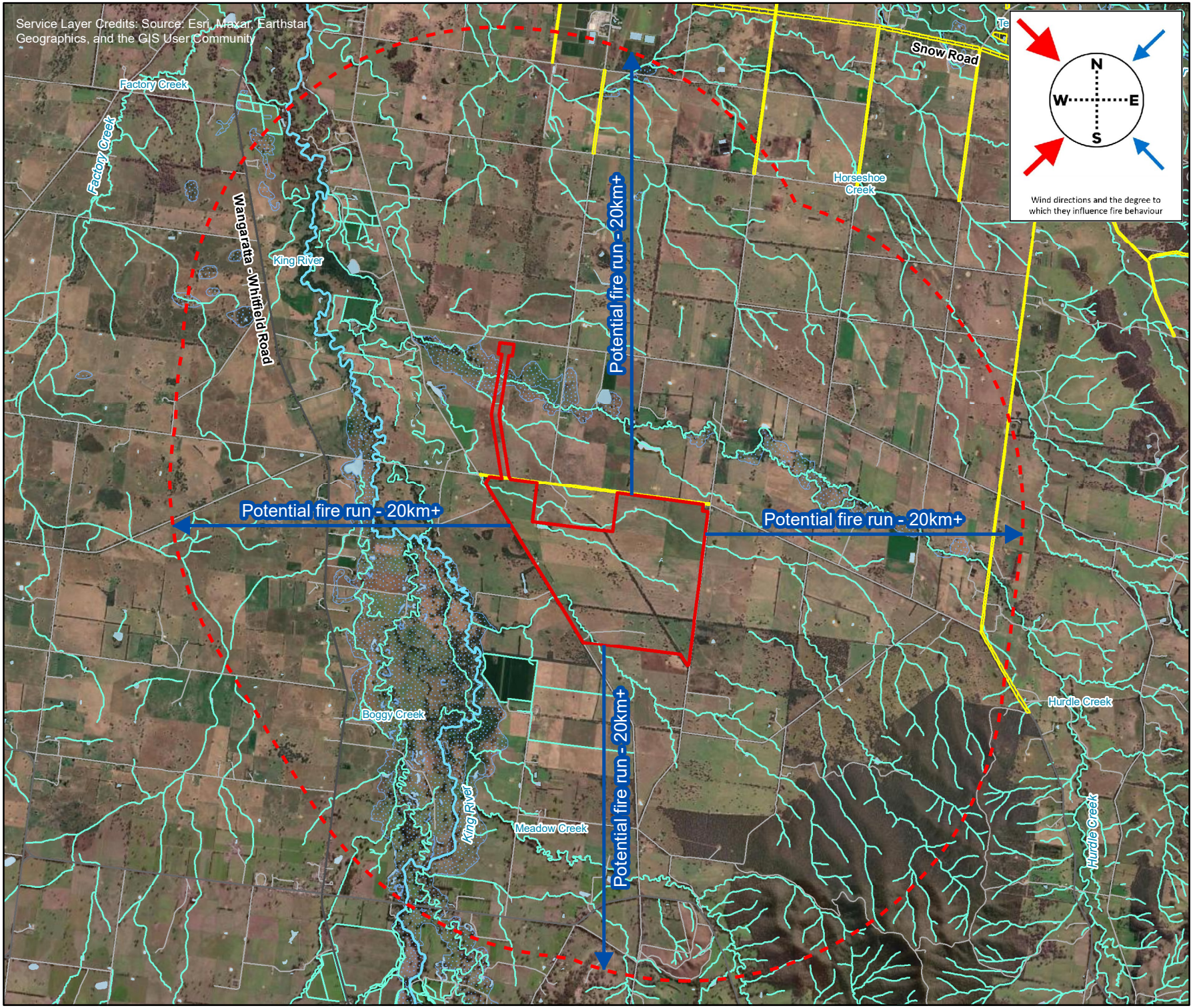

Legend

- Study Area
- 5km Assessment Zone
- Major Road
- Collector Road
- Minor Road
- Minor Watercourse
- Major Watercourse
- Permanent Waterbody
- Land Subject To Inundation

Fire History

- DEECA Planned Burns 2021/22 - 2023/24

Attachment 3

Fire History and Neighbourhood Safer Place Assessment

Meadows Creek Solar Farm

0 1,000 2,000
Metres

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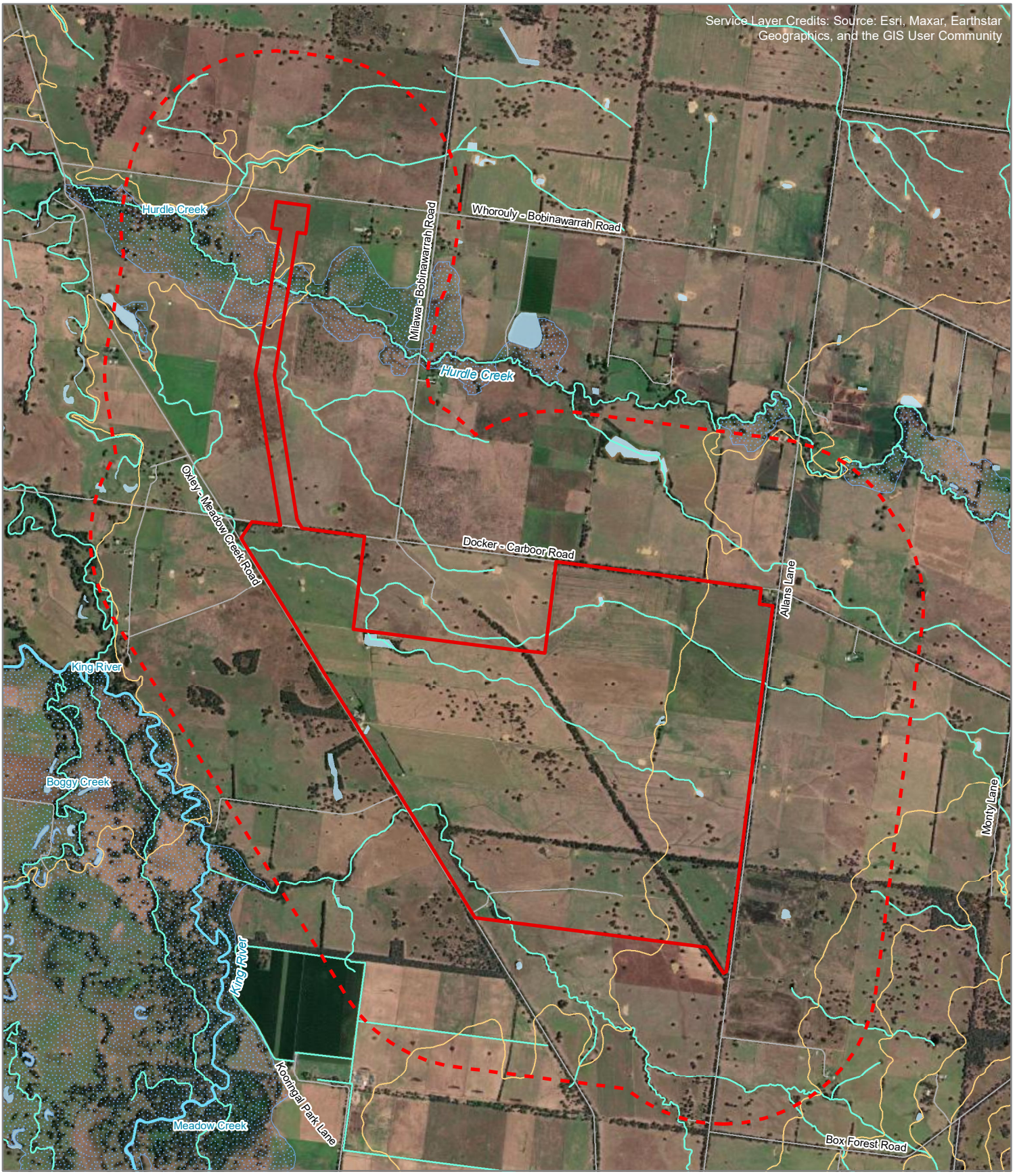

Attachment 4
Bushfire Hazard Local Assessment
Meadows Creek Solar Farm

Legend

- Study Area
- 1km Local Assessment Zone
- Minor Road
- Minor Watercourse
- Major Watercourse
- Permanent Waterbody
- Land Subject To Inundation
- Contour (10m)

N

0 500 1,000
Metres

VicMap Data: The State of Victoria does not warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that the State of Victoria shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

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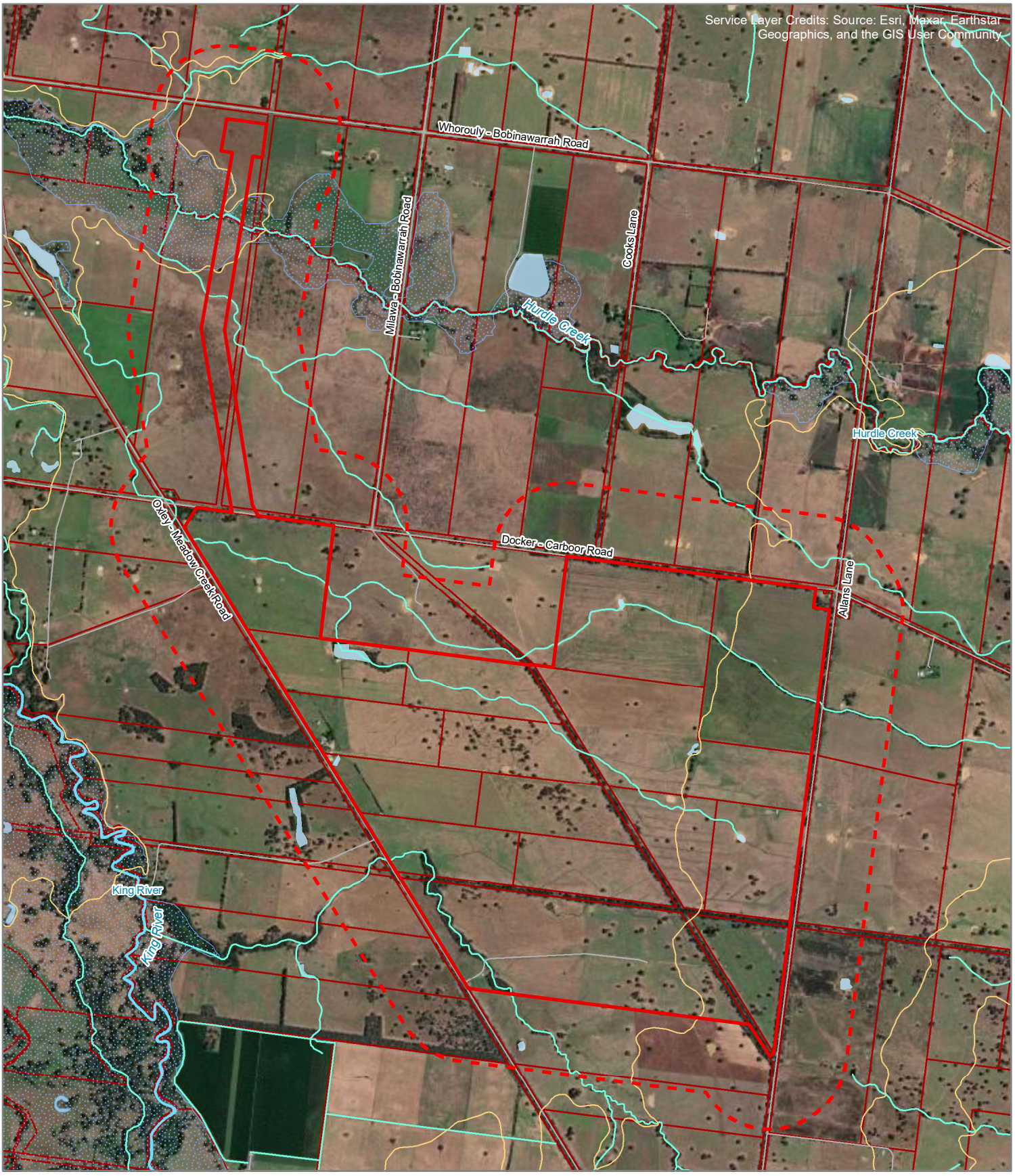

Attachment 5
Bushfire Hazard Neighbourhood Assessment
Meadows Creek Solar Farm

Legend

- Study Area
- 400m Neighbourhood Assessment Zone
- Property Boundaries
- Minor Road
- Minor Watercourse
- Major Watercourse
- Permanent Waterbody
- Land Subject To Inundation
- Contour (10m)

N

0 400 800

Metres

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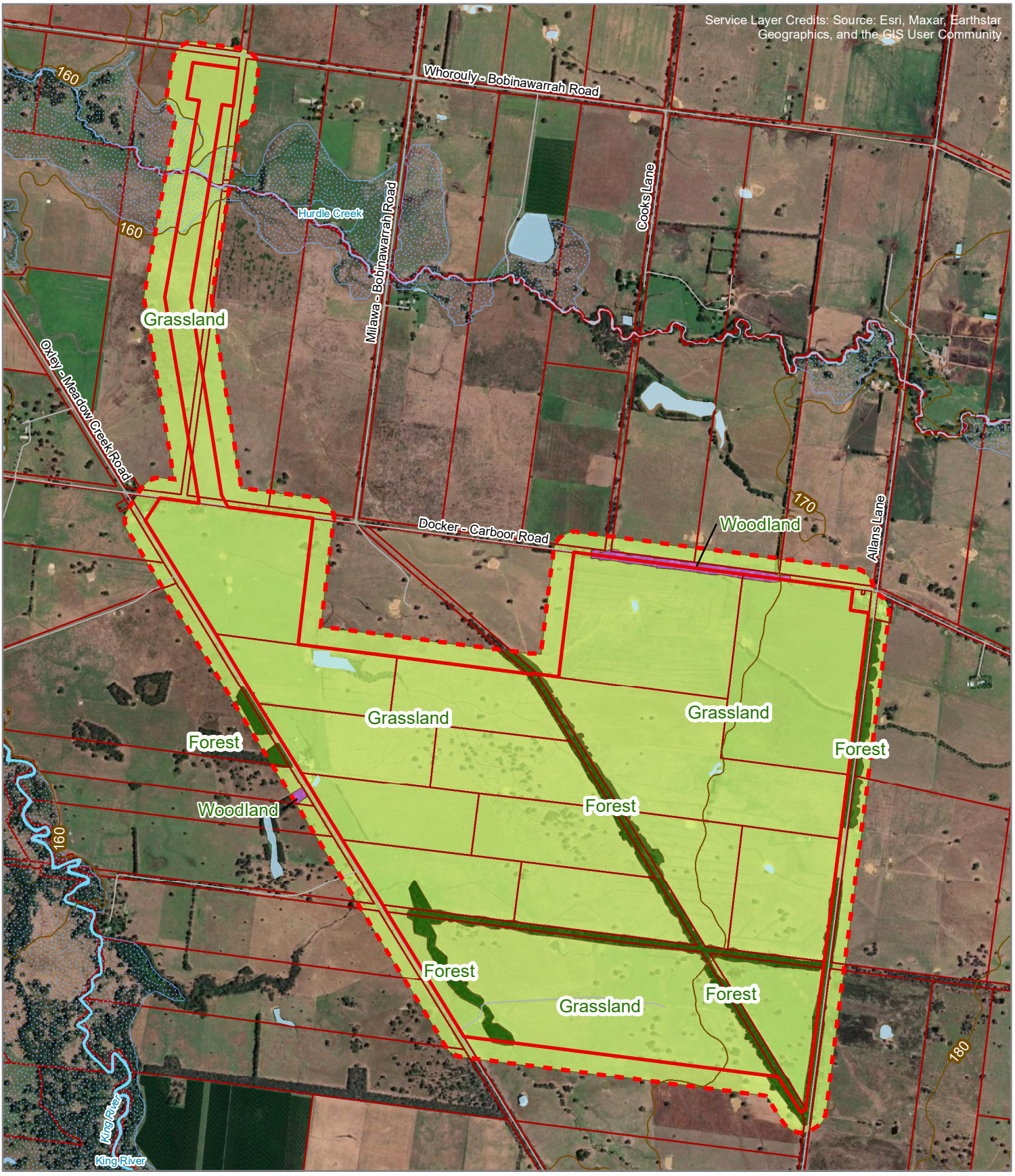


Attachment 6

Bushfire Hazard Site Assessment

Meadows Creek Solar Farm

Legend

- Study Area
- 100m Site Assessment Area

Classified vegetation

- Forest
- Grassland
- Woodland

Other features

- Property boundaries
- Permanent Waterbody
- Land Subject To Inundation
- Major Watercourse
- Contour (10m)
- Minor Road

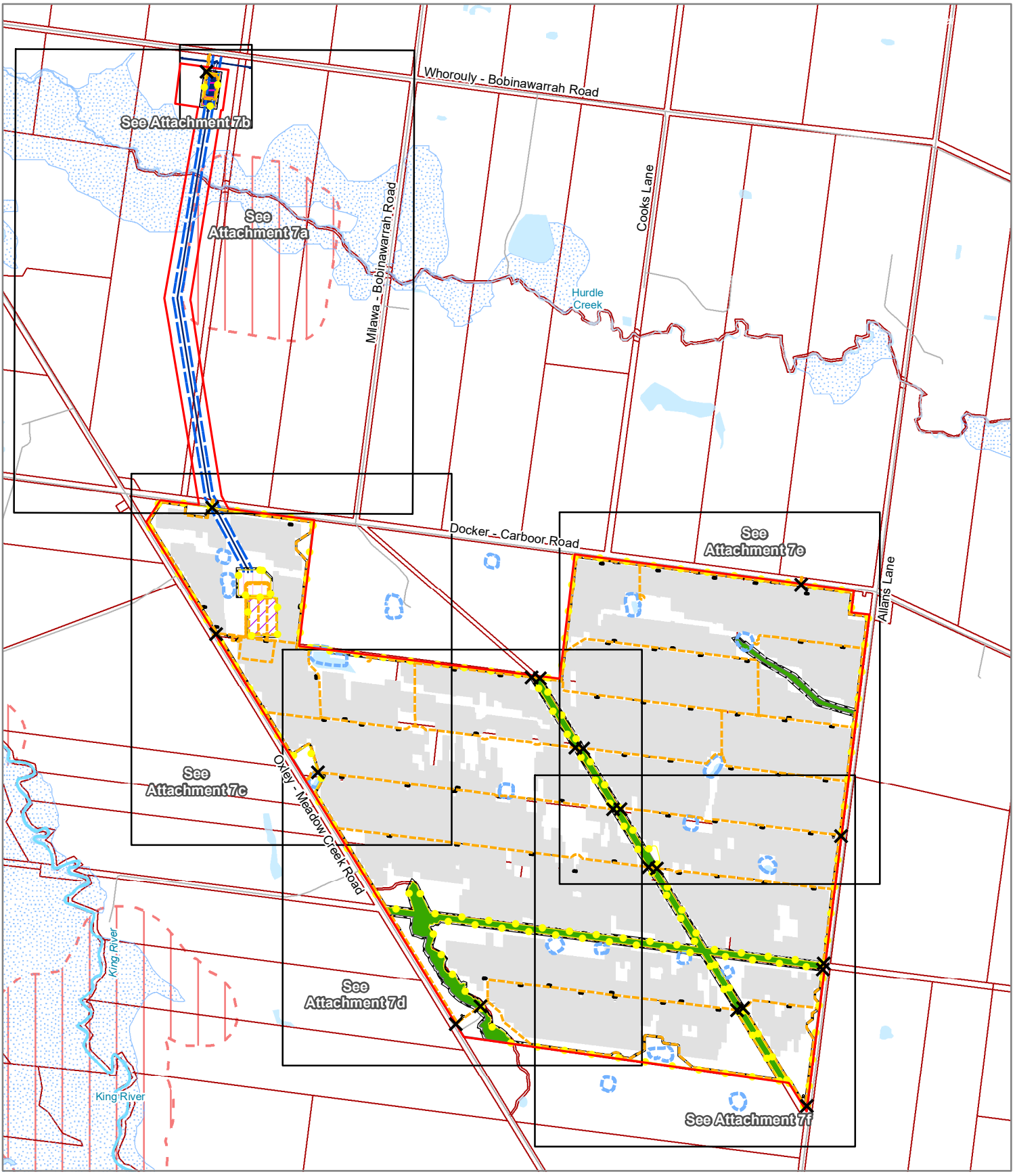
All land within the 100 metre site assessment area is classified as Upslope/Flat land.

N

0 350 700

Metres

ecology & heritage partners



Attachment 7
Bushfire Management Plan
Meadows Creek Solar Farm

Legend

- Study Area
- Bushfire Management Overlay
- BESS
- Terminal substation
- Collector substation
- Overall development
- Retained tree strip / Wildlife corridor
- External vegetation buffer (5m)
- Access roads (4m)
- PV Solar panels
- Inverter skids
- Easement
- Fencing
- Retained dams
- Transmission line
- Internal and external access gates

Other features

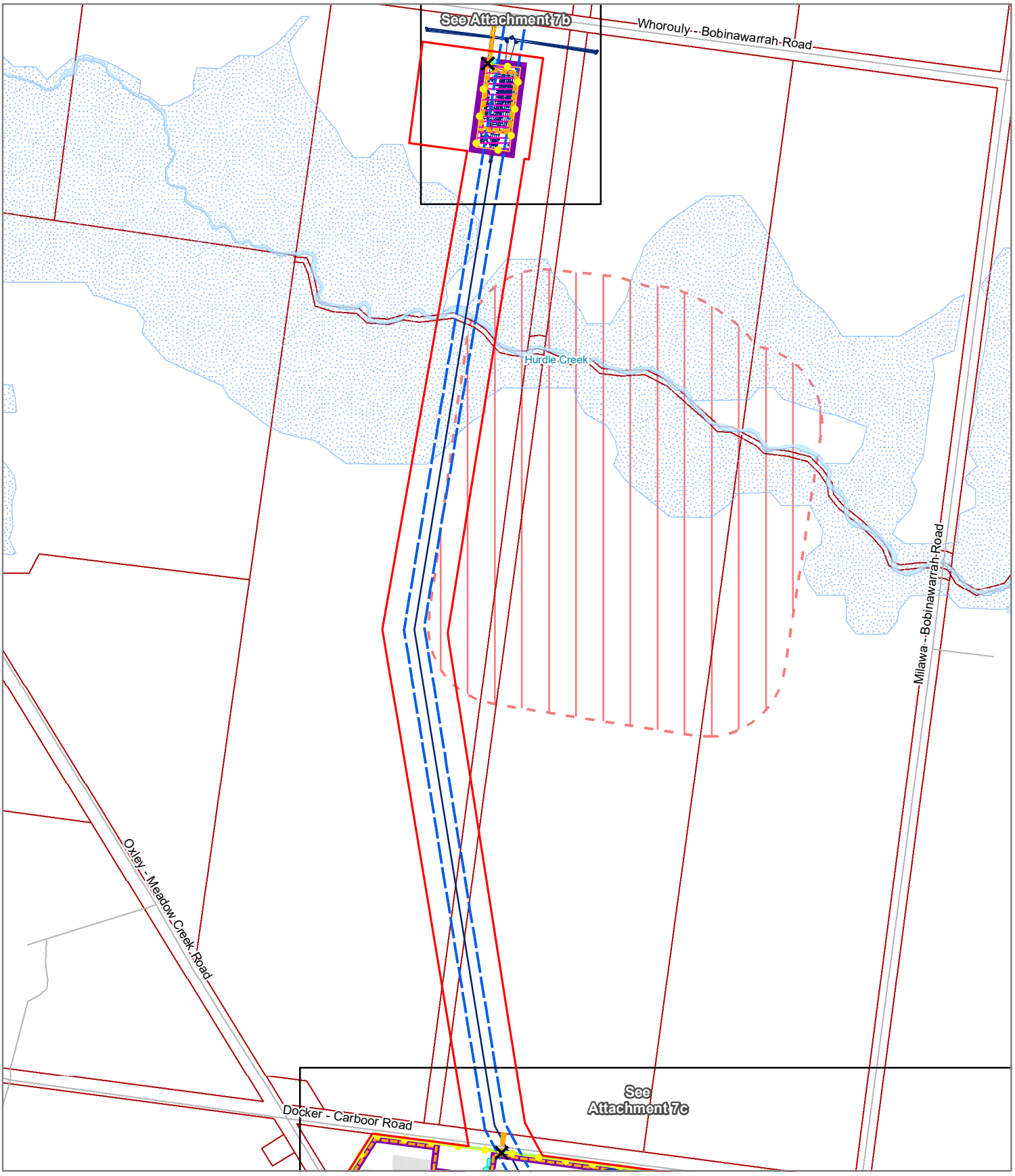
- Property boundaries
- Permanent Waterbody
- Land Subject To Inundation
- Major Watercourse
- Minor Road

N

0 320 640

Metres

ecology & heritage partners



Attachment 7a
Bushfire Management Plan
Meadows Creek Solar Farm

Legend

- Study Area
- Bushfire Management Overlay
- Terminal substation
- Fire break (10m)
- Passing bay (6m)
- External vegetation buffer (5m)
- Watertank (45,000L)
- Access roads (4m)
- PV Solar panels
- Easement
- Fencing
- Transmission line
- Internal and external access gates

Other features

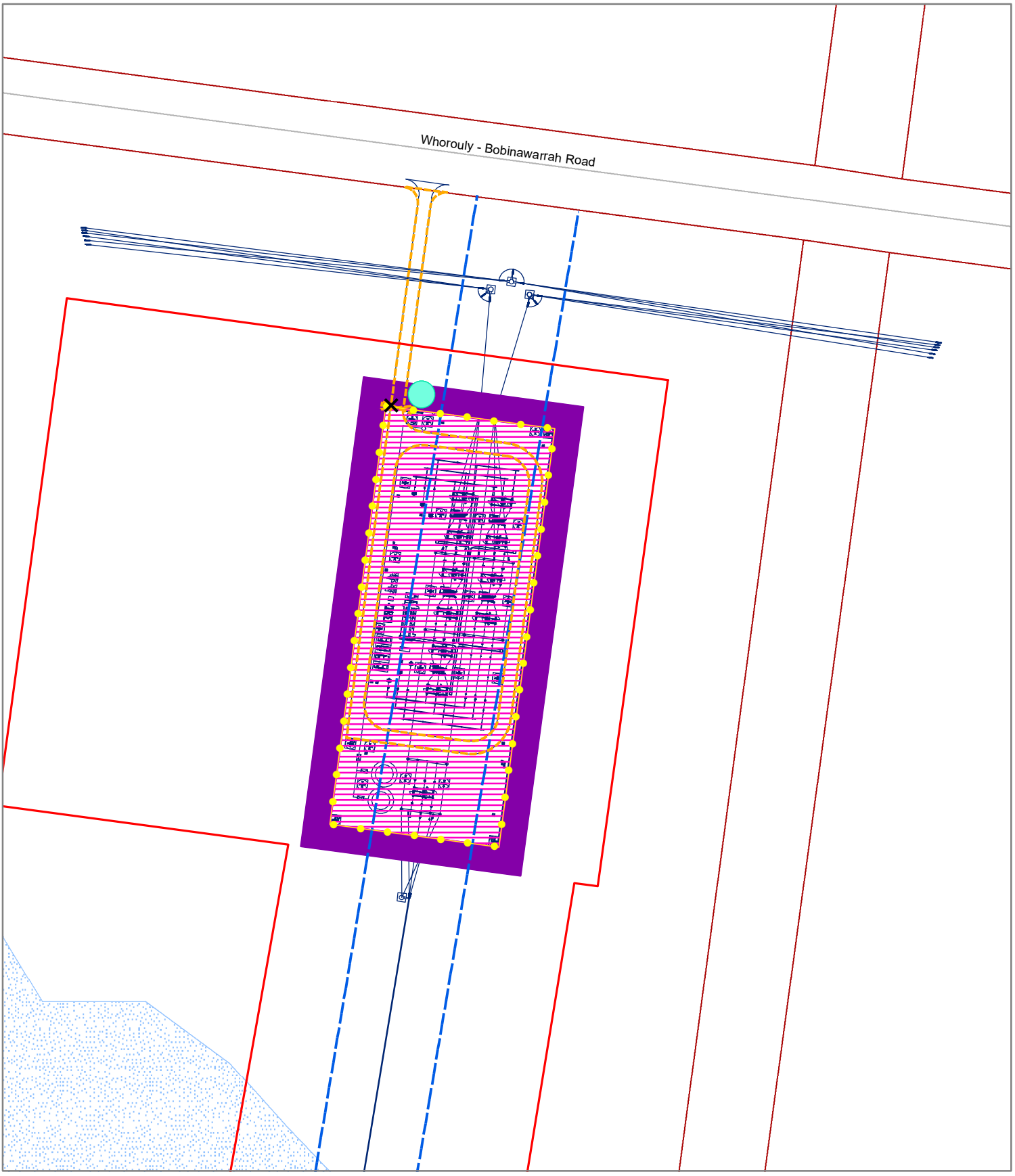
- Property boundaries
- Permanent Waterbody
- Land Subject To Inundation
- Minor Road

N

0 125 250

Metres

ecology & heritage partners



Attachment 7b
Bushfire Management Plan
Meadows Creek Solar Farm

Legend

- Study Area
- Terminal substation
- Fire break (10m)
- Watertank (45,000L)
- Access roads (4m)
- Easement
- Fencing
- Transmission line
- Internal and external access gates

Other features

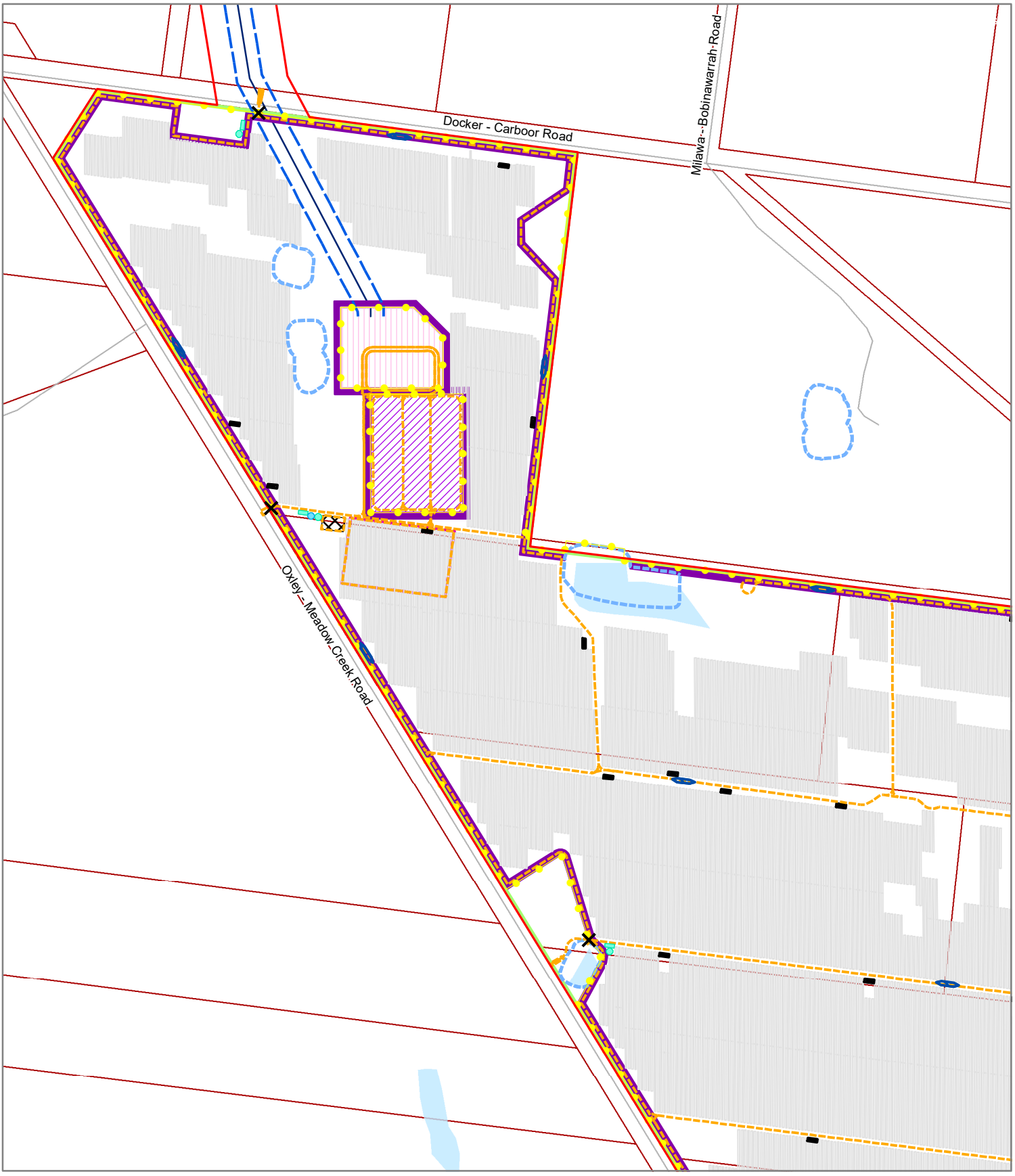
- Property boundaries
- Land Subject To Inundation
- Minor Road

N

0 25 50

Metres

ecology & heritage partners



Attachment 7c
Bushfire Management Plan
Meadows Creek Solar Farm

Legend

- Study Area
- BESS
- Collector substation
- Fire break (10m)
- Passing bay (6m)
- Temporary construction laydown area
- Car parking
- External vegetation buffer (5m)
- Watertank (288,000L)
- Watertank (45,000L)
- Access roads (4m)
- PV Solar panels
- Inverter skids
- Easement
- Fencing
- Retained dams
- Transmission line
- Internal and external access gates

Other features

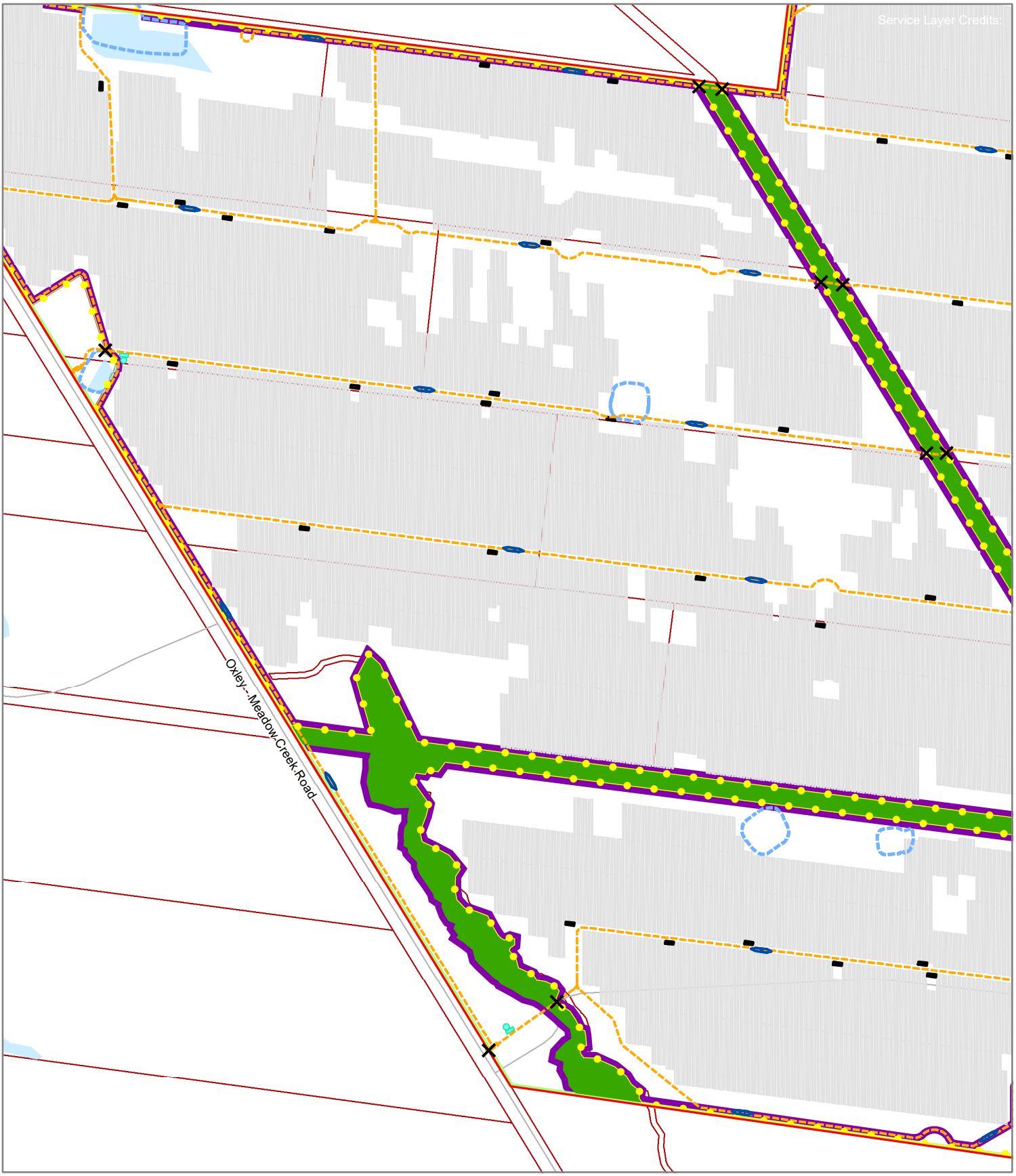
- Property boundaries
- Permanent Waterbody
- Minor Road

N

0 100 200

Metres

ecology & heritage partners



Attachment 7d
Bushfire Management Plan
Meadows Creek Solar Farm

Legend

- Study Area
- Fire break (10m)
- Passing bay (6m)
- Retained tree strip / Wildlife corridor
- External vegetation buffer (5m)
- Watertank (45,000L)
- Access roads (4m)
- PV Solar panels
- Inverter skids
- Fencing
- Retained dams
- Internal and external access gates

Other features

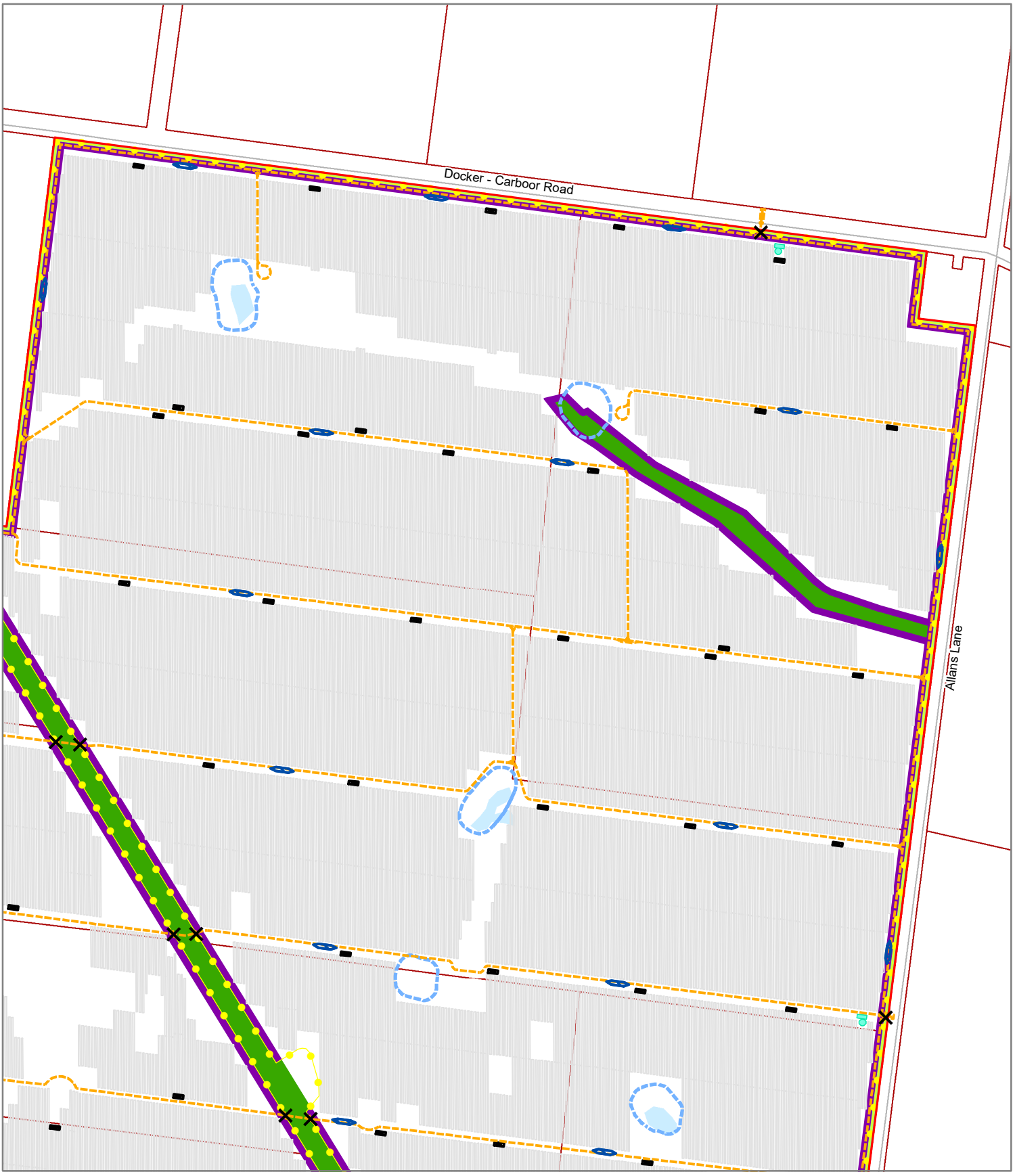
- Property boundaries
- Permanent Waterbody
- Minor Road

N

0 115 230

Metres

ecology & heritage partners



Attachment 7e
Bushfire Management Plan
Meadows Creek Solar Farm

Legend

- Study Area
- Fire break (10m)
- Passing bay (6m)
- Retained tree strip / Wildlife corridor
- External vegetation buffer (5m)
- Watertank (45,000L)
- Access roads (4m)
- PV Solar panels
- Inverter skids
- Fencing
- Retained dams
- Internal and external access gates

Other features

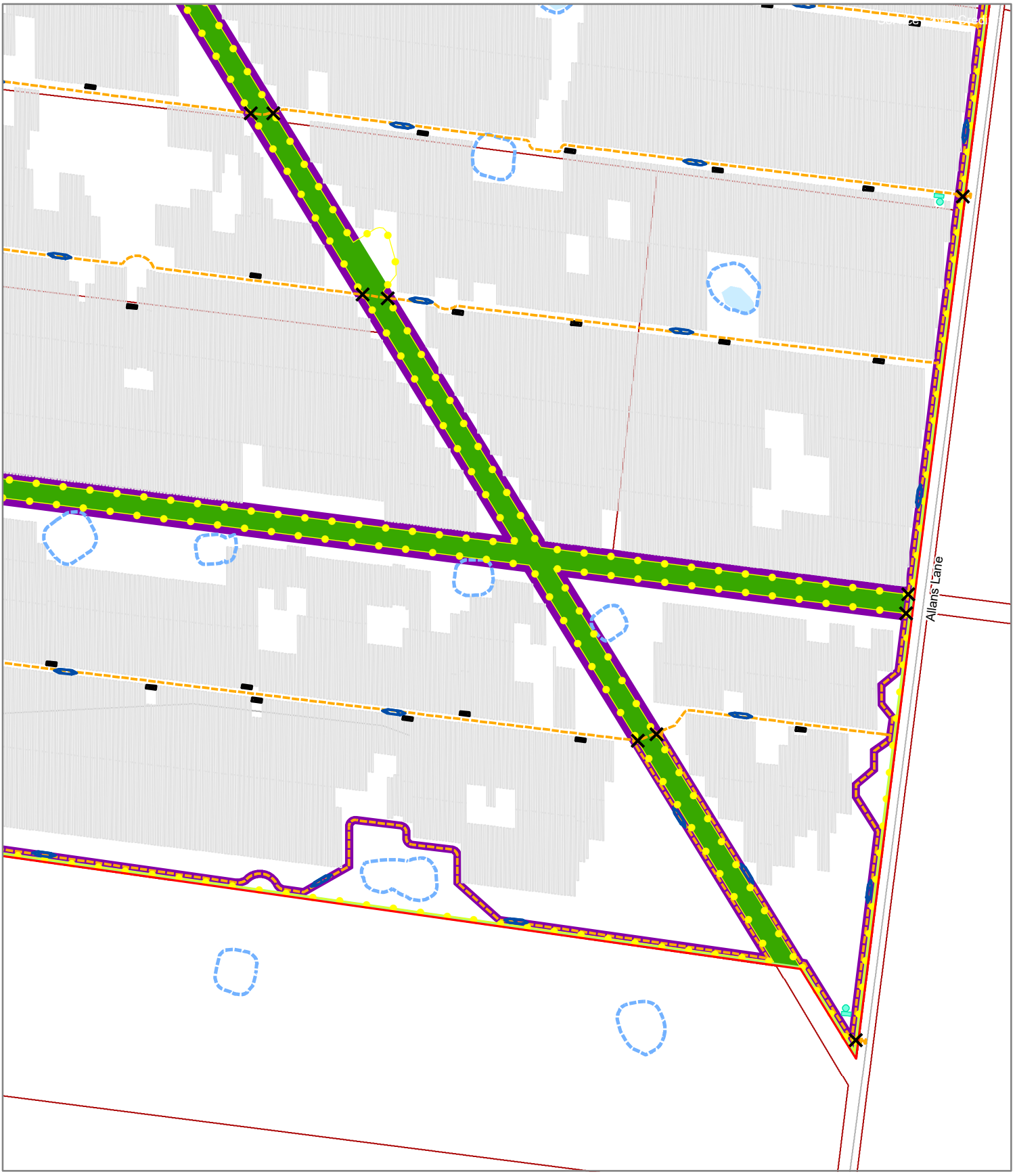
- Property boundaries
- Permanent Waterbody
- Minor Road

N

0 100 200

Metres

ecology & heritage partners



Attachment 7f
Bushfire Management Plan
Meadows Creek Solar Farm

Legend

- Study Area
- Fire break (10m)
- Passing bay (6m)
- Retained tree strip / Wildlife corridor
- External vegetation buffer (5m)
- Watertank (45,000L)
- Access roads (4m)
- PV Solar panels
- Inverter skids
- Fencing
- Retained dams
- Internal and external access gates

Other features

- Property boundaries
- Permanent Waterbody
- Minor Road

N

0 100 200

Metres

ecology & heritage partners