

---

**Appendix N**

Contaminated land and acid sulfate soils

Part 2

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Historic Aerial Photograph - 1972

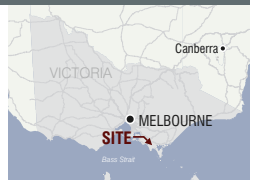


LI-02092 Aerial Photograph 1972 23.09.2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

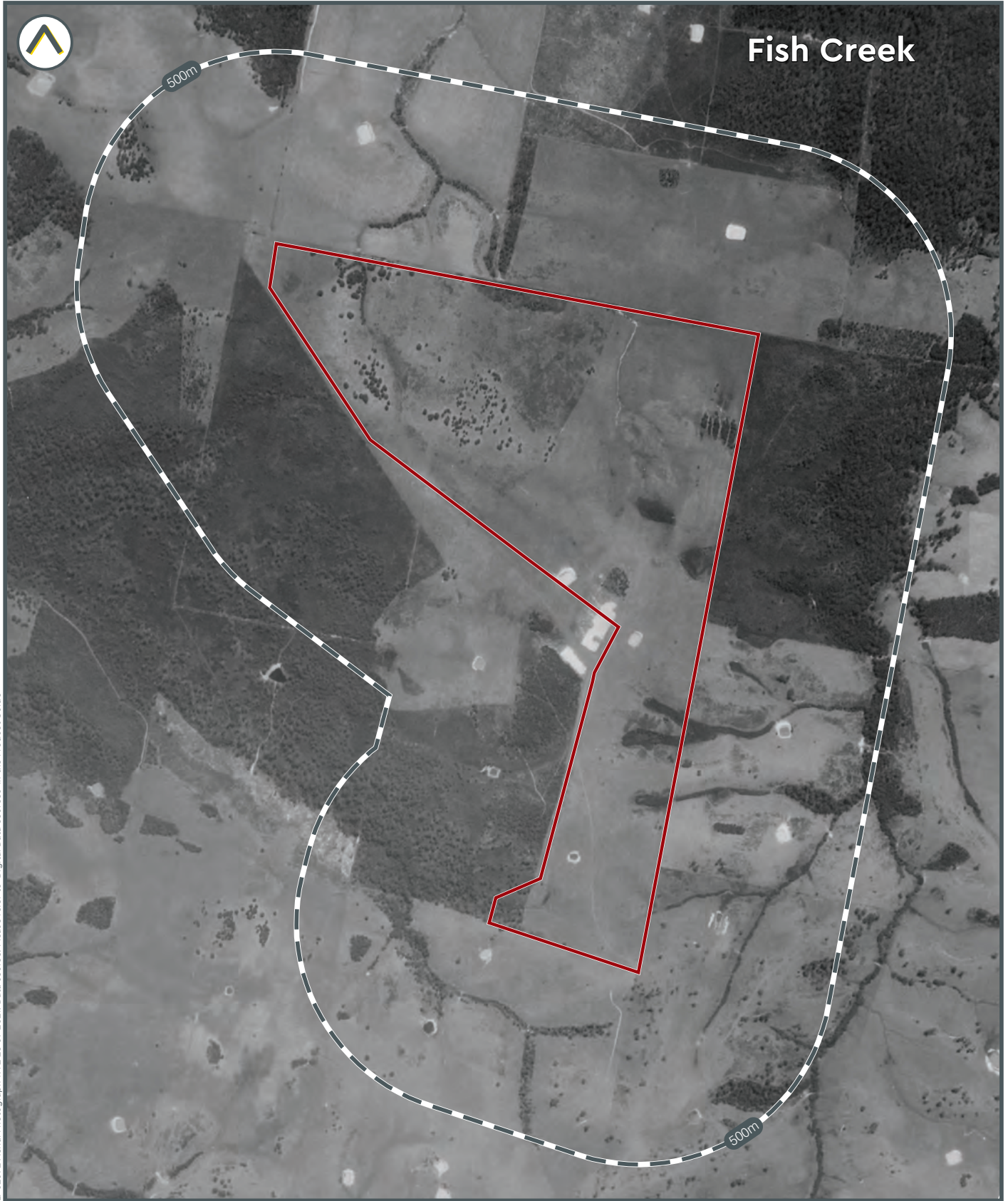
Subject area



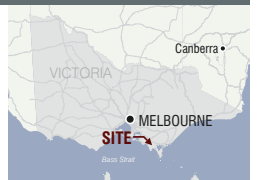
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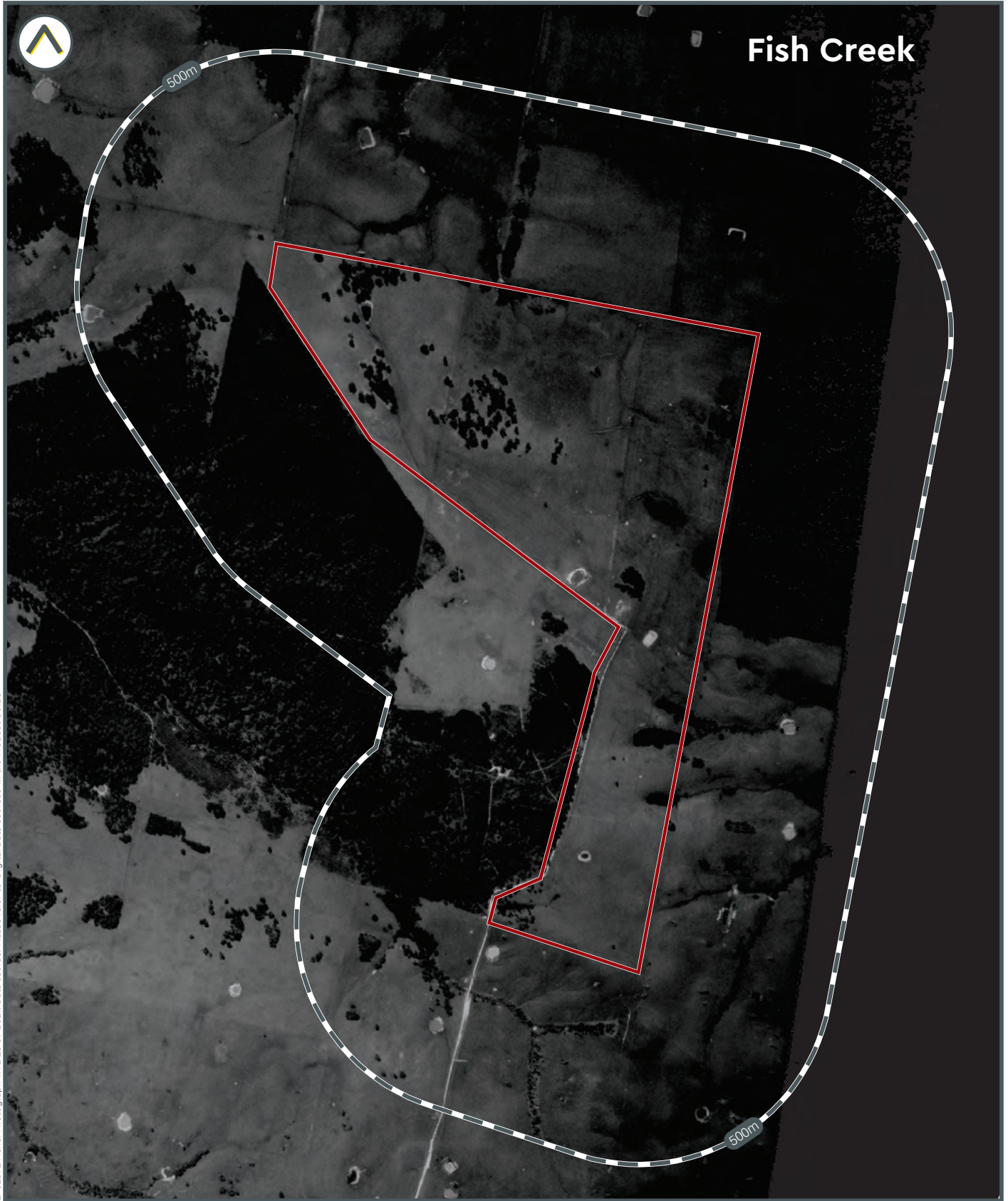
Historic Aerial Photograph - 1975



Subject area



Historic Aerial Photograph - 1985



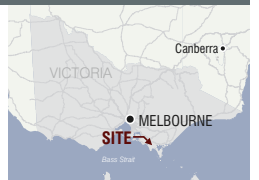
LI-02092 Aerial Photograph 1972-23.09.2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

 Subject area

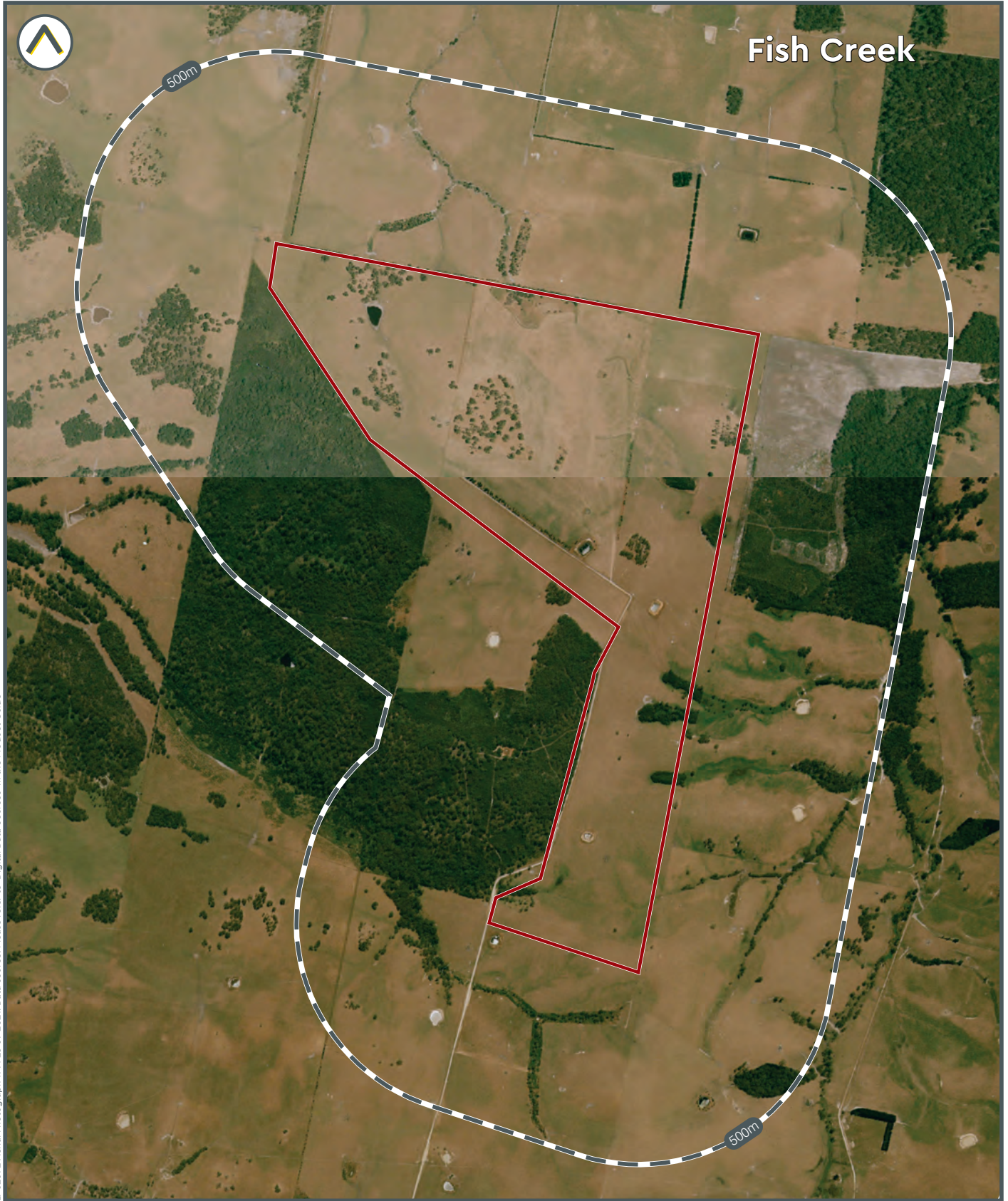
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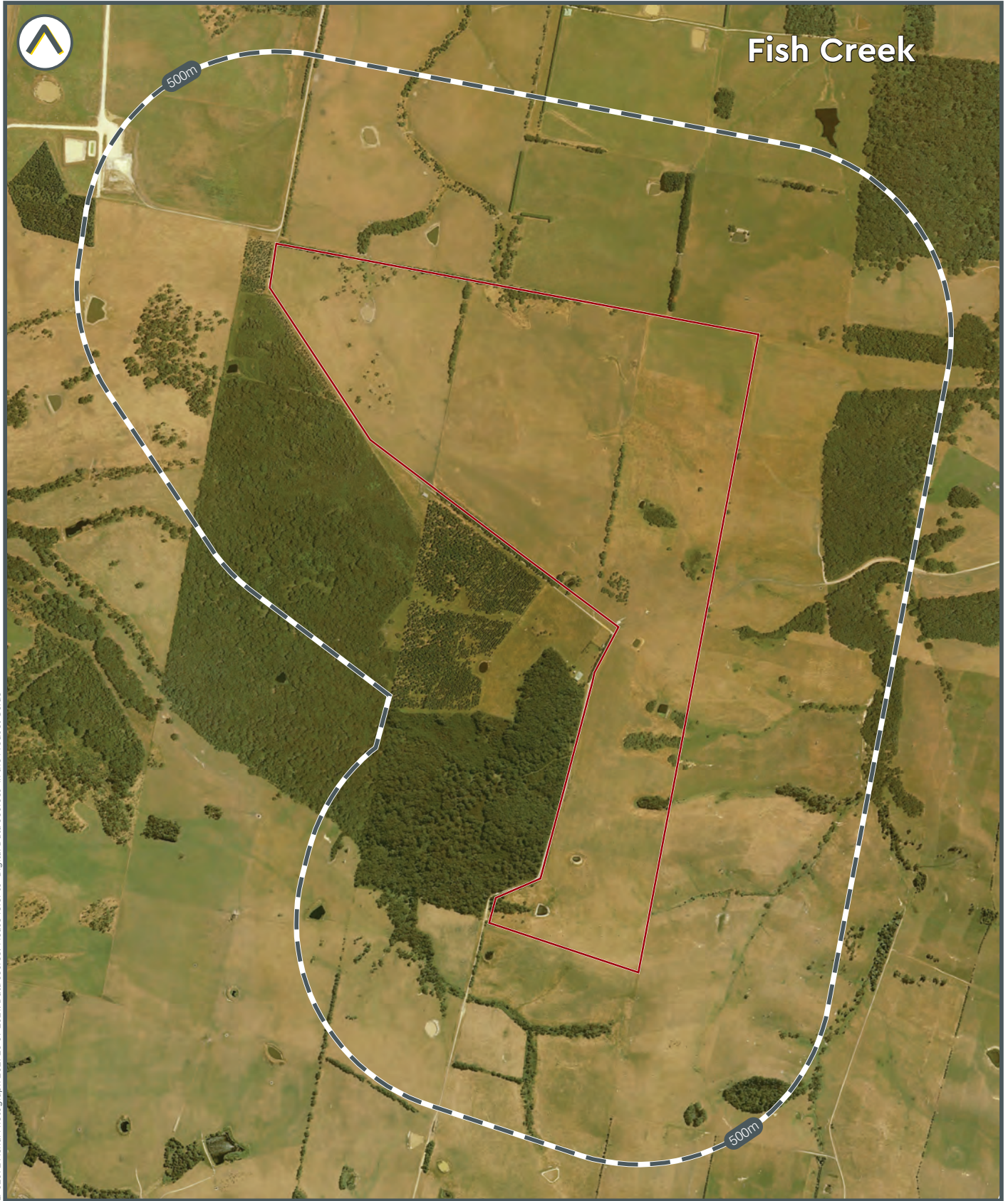
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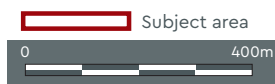
Historic Aerial Photograph - 1991



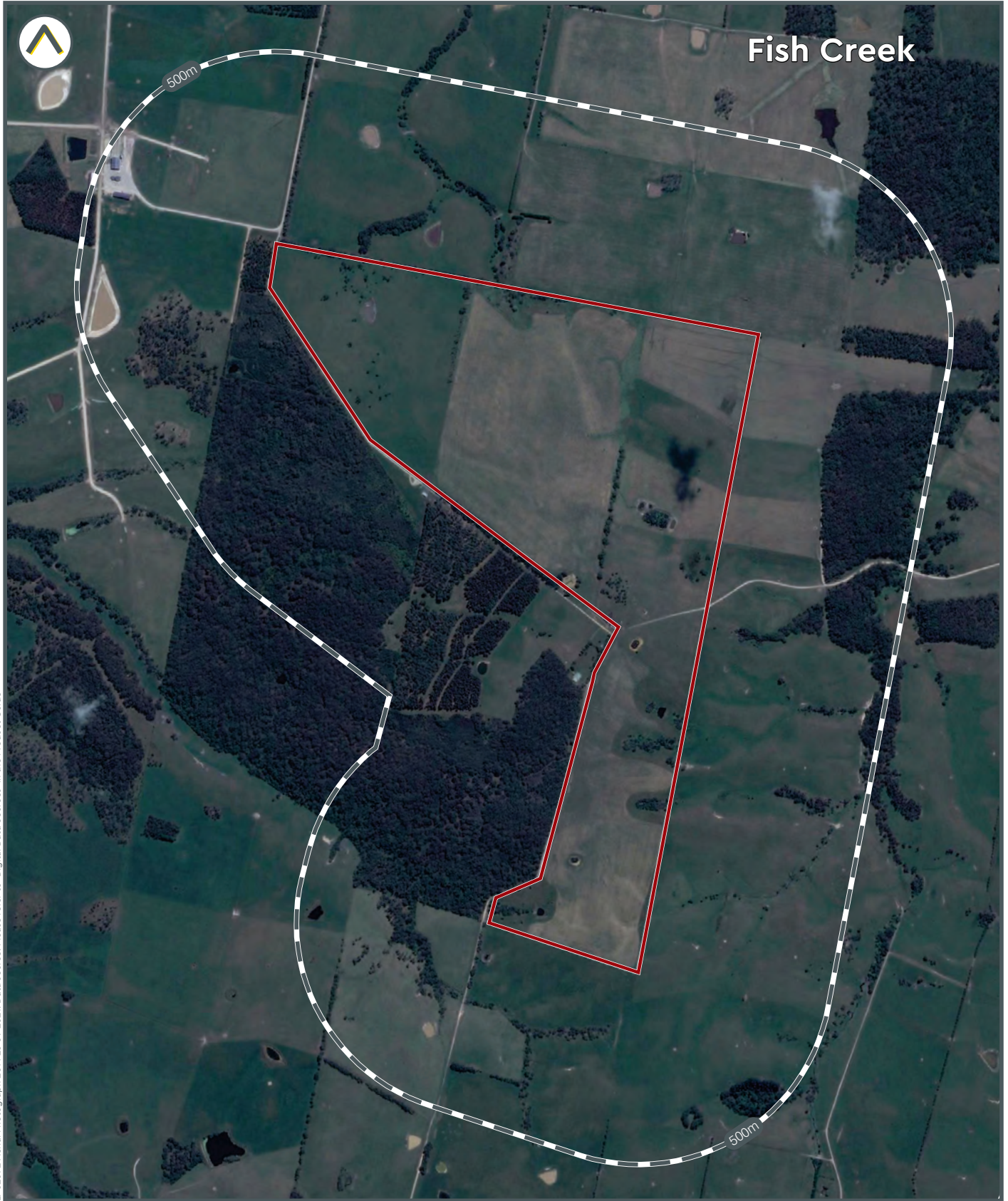
Historic Aerial Photograph - 2009



LI-02092 Aerial Photograph 2021 23.09.2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide



Historic Aerial Photograph - 2014



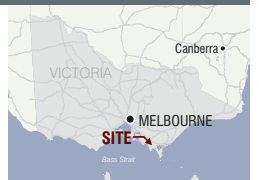
LI-02092 Aerial Photograph 2014\_23.09.2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

 Subject area

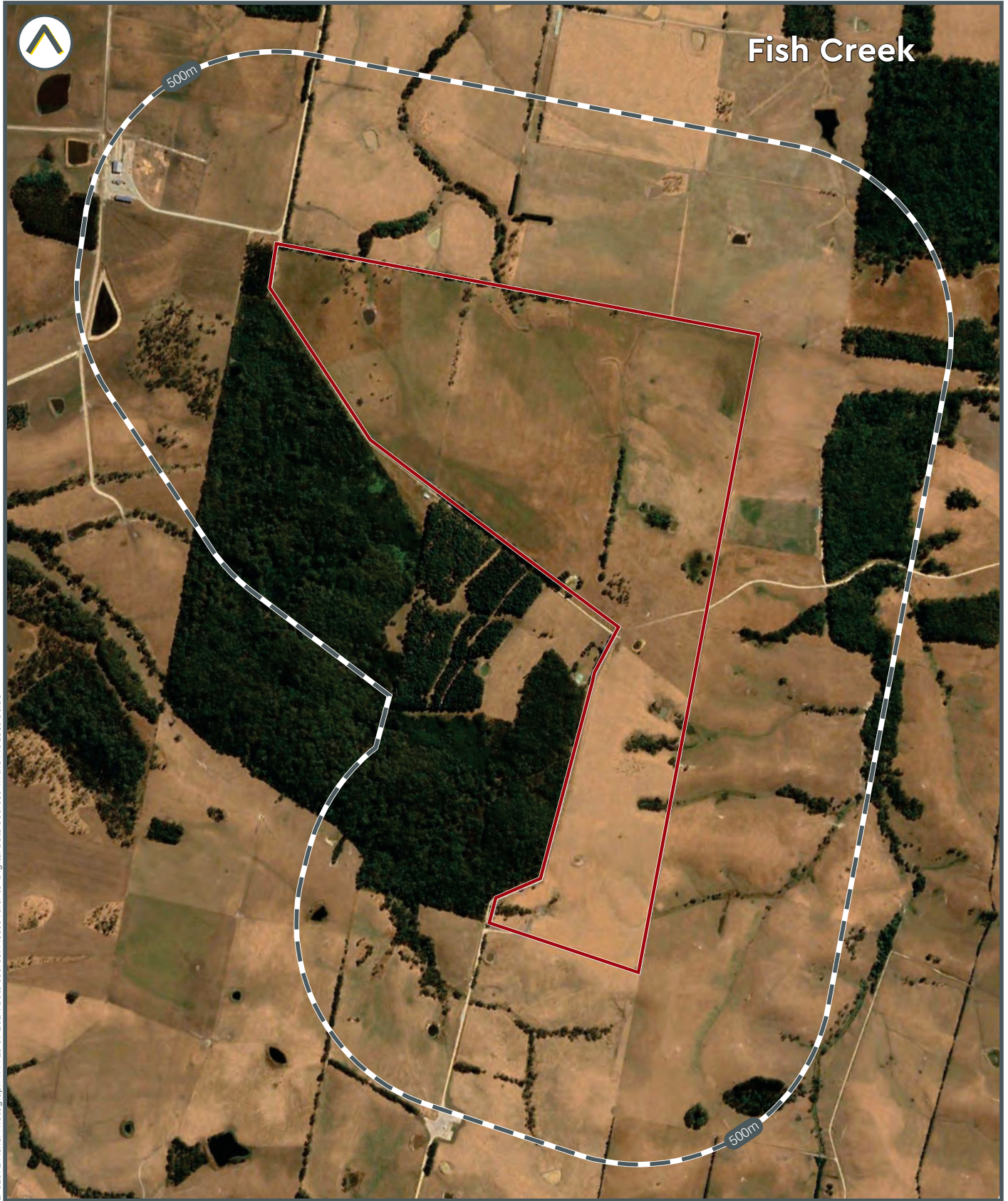
0 400m



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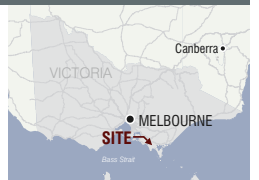
Historic Aerial Photograph - 1991



LI-02092 Aerial Photograph 1991 23 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

 Subject area

0 400m

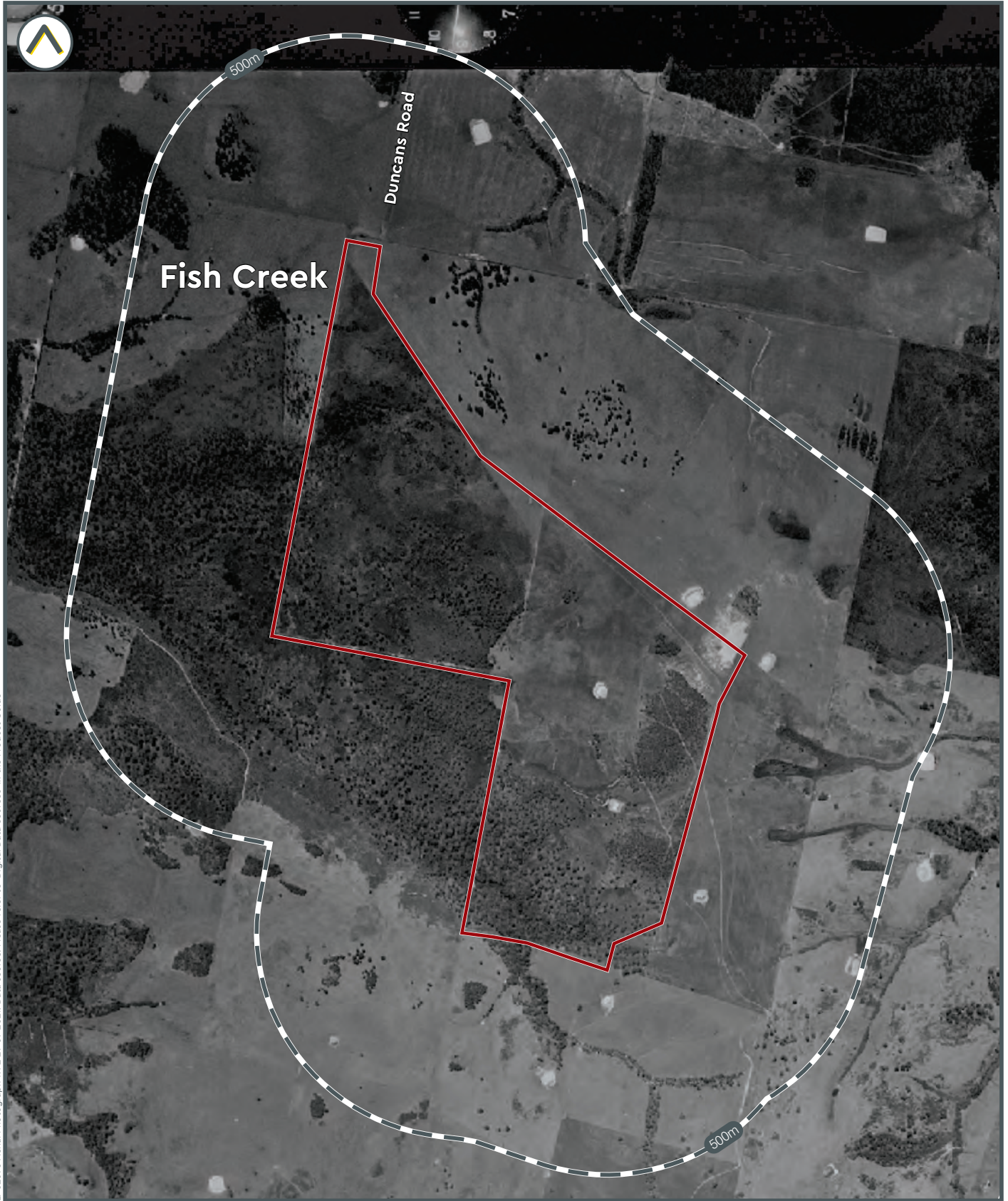




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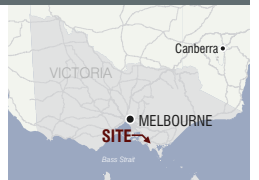
Historic Aerial Photograph - 1972



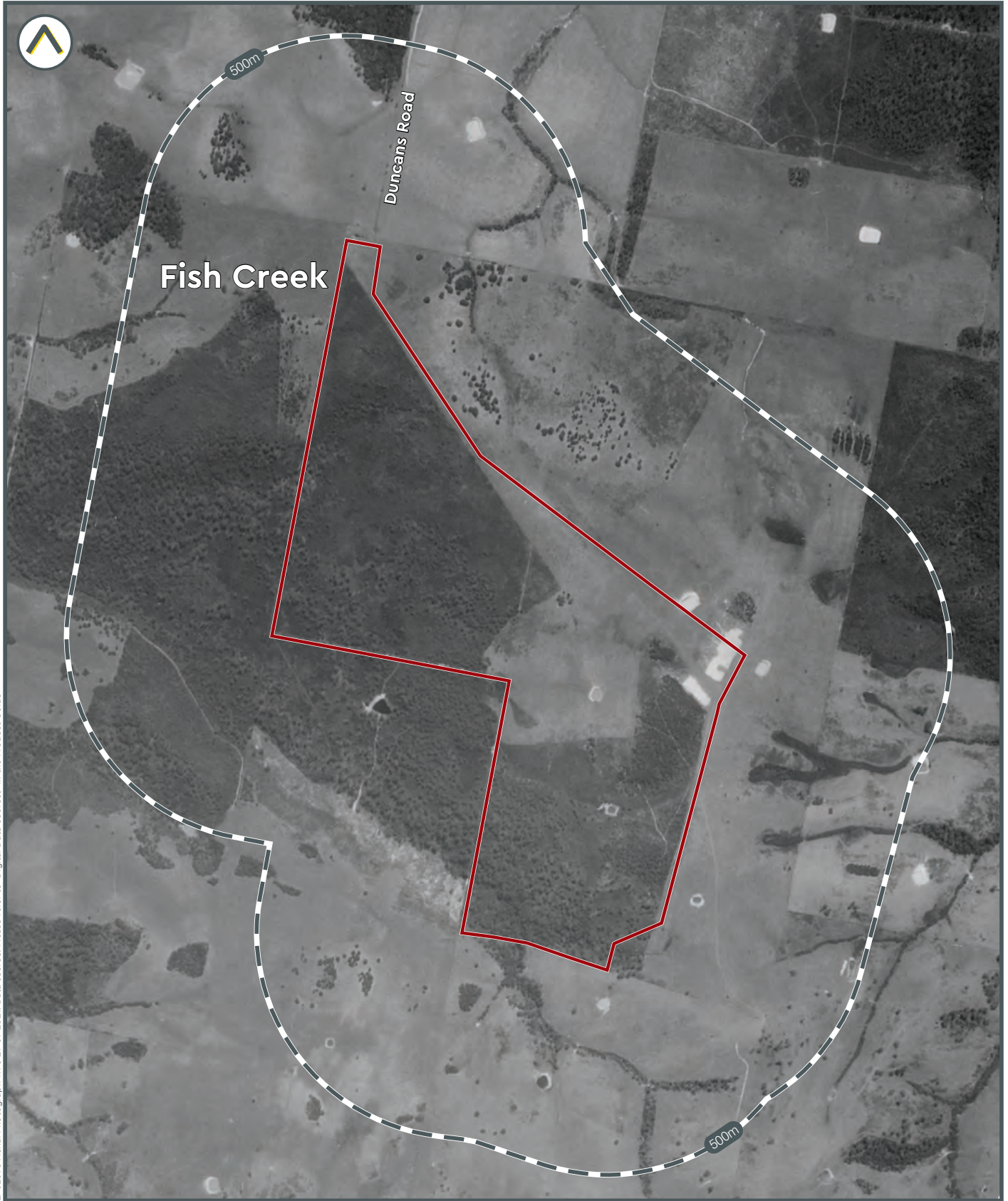
LI-02093 Aerial Photograph 1972 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 400m



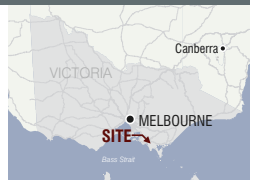
Historic Aerial Photograph - 1975



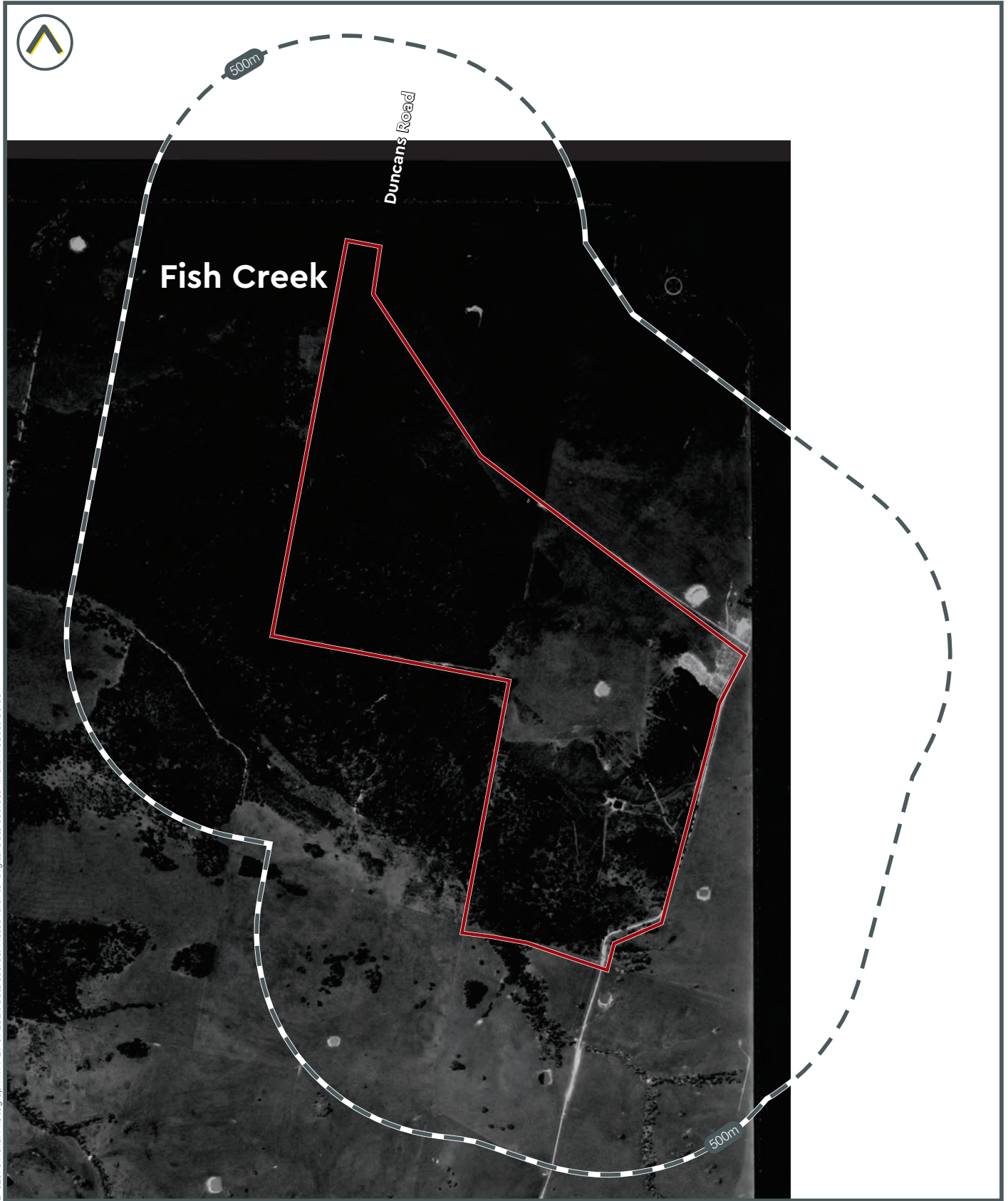
LI-02093 Aerial Photograph 1975 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 400m



Historic Aerial Photograph - 1979

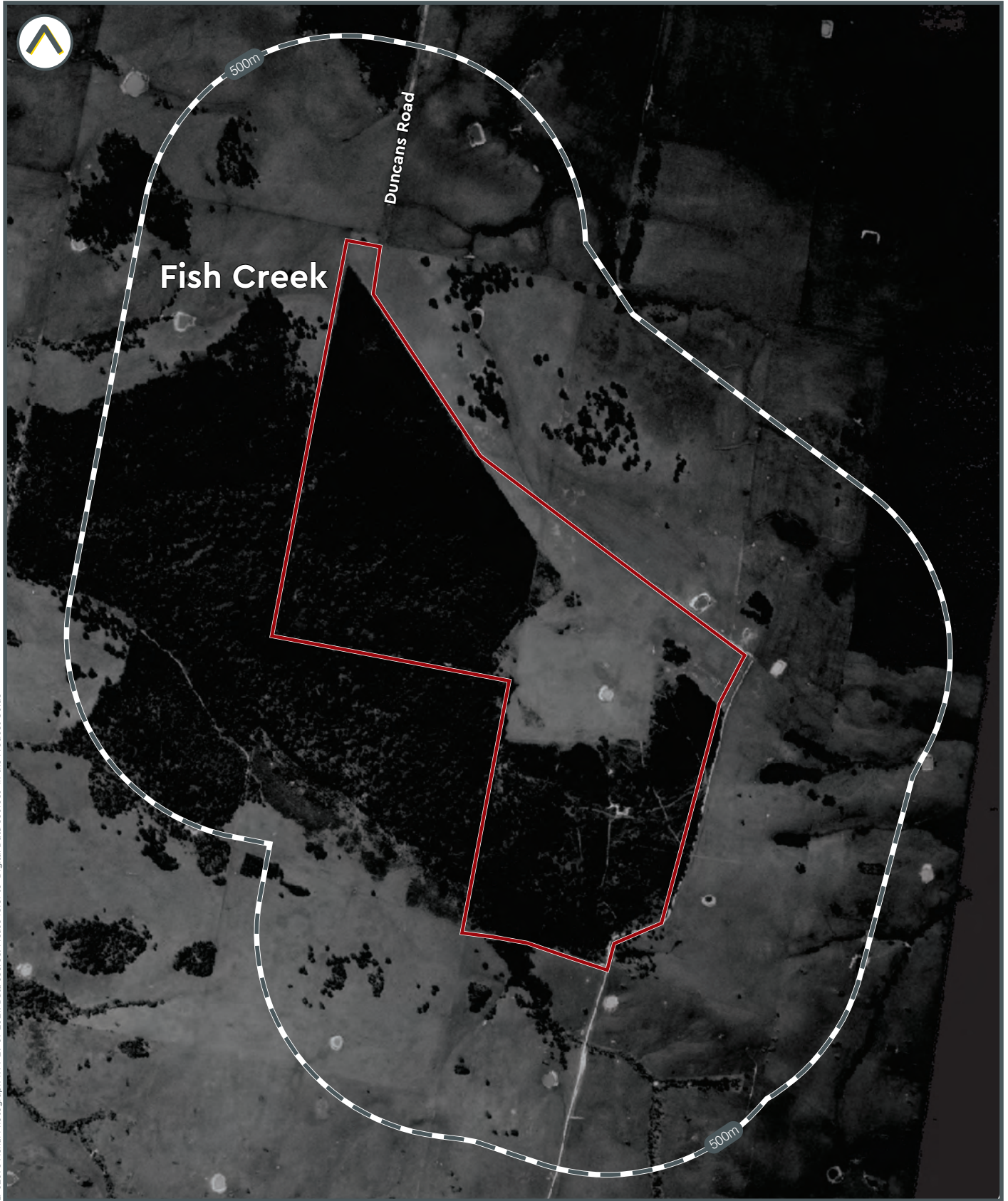


LI-02093 Aerial Photograph, 1979-29-09-2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

 Subject area

0 400m

Historic Aerial Photograph - 1985



LI-02093 Aerial Photograph 1979-29-09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

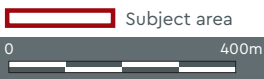
Subject area



Historic Aerial Photograph - 1991



LI-02093 Aerial Photograph 1991/29/09/2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide



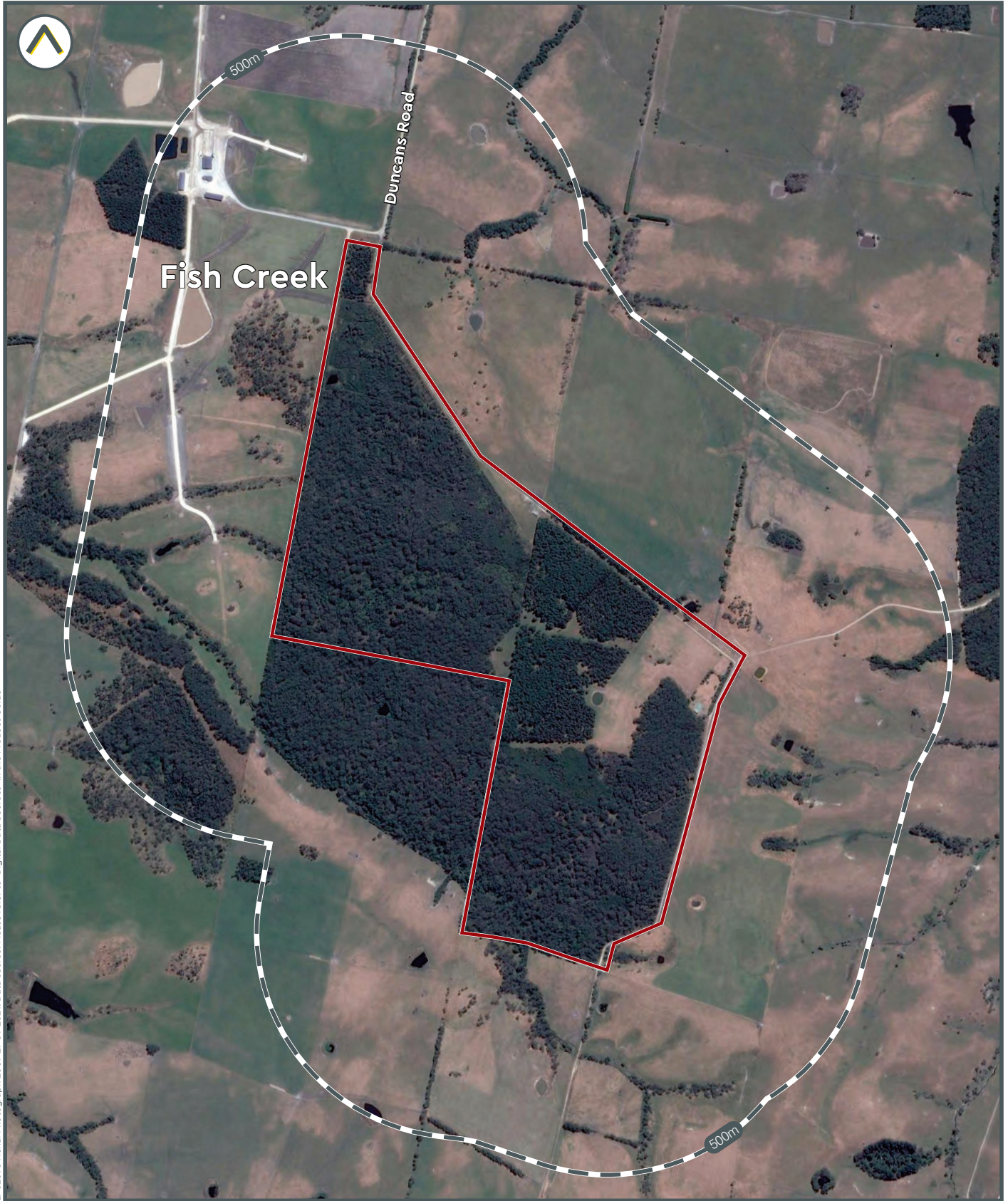
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LI-02093 Aerial Photograph 2009 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide



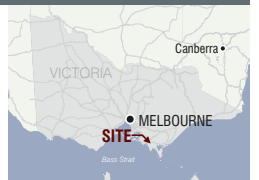
Historic Aerial Photograph - 2014



LI-02093 Aerial Photograph 2009 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 400m





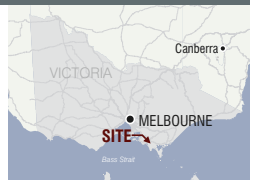
Historic Aerial Photograph - 2017



LI-02093 Aerial Photograph 2017 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

 Subject area

0 400m



Historic Aerial Photograph - 2020



LI-02093 Aerial Photograph 2020 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide



Historic Aerial Photograph - 1972



LI-02094\_Aerial Photograph 2009 23.09.2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area



Historic Aerial Photograph - 1975



LI-02094-Aerial Photograph 2009 23.09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area



Historic Aerial Photograph - 1979



LI-02094\_Aerial Photograph 2009 23.09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area



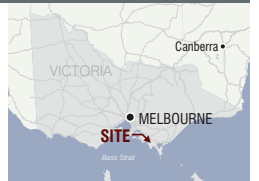
Historic Aerial Photograph - 1981



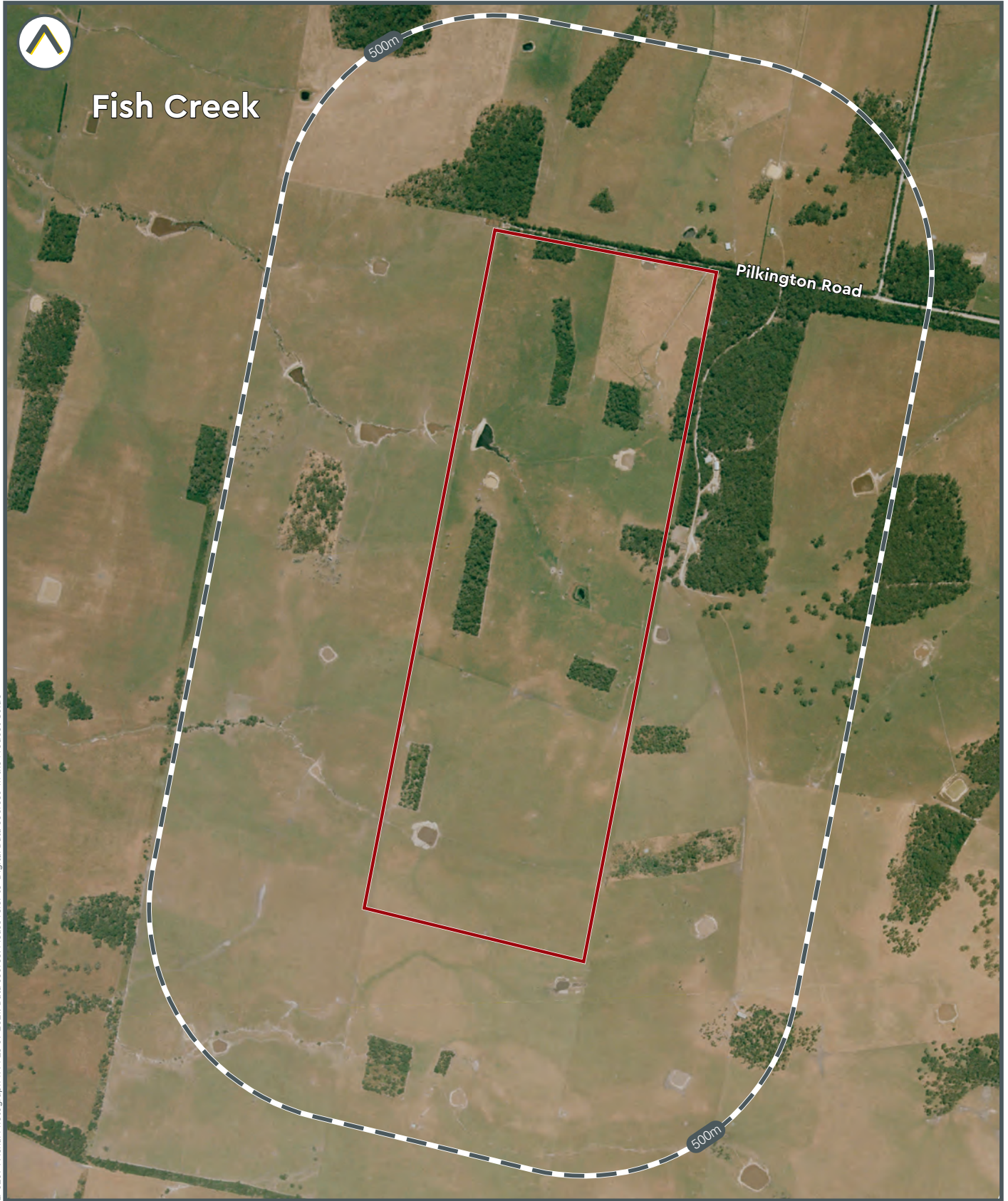
LI-02094 Aerial Photograph 2009 23.09.2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 400m



Historic Aerial Photograph - 1991

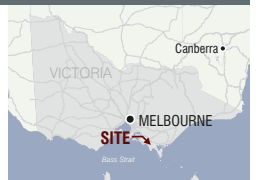


LI-02094\_Aerial Photograph 1991\_23\_09\_2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

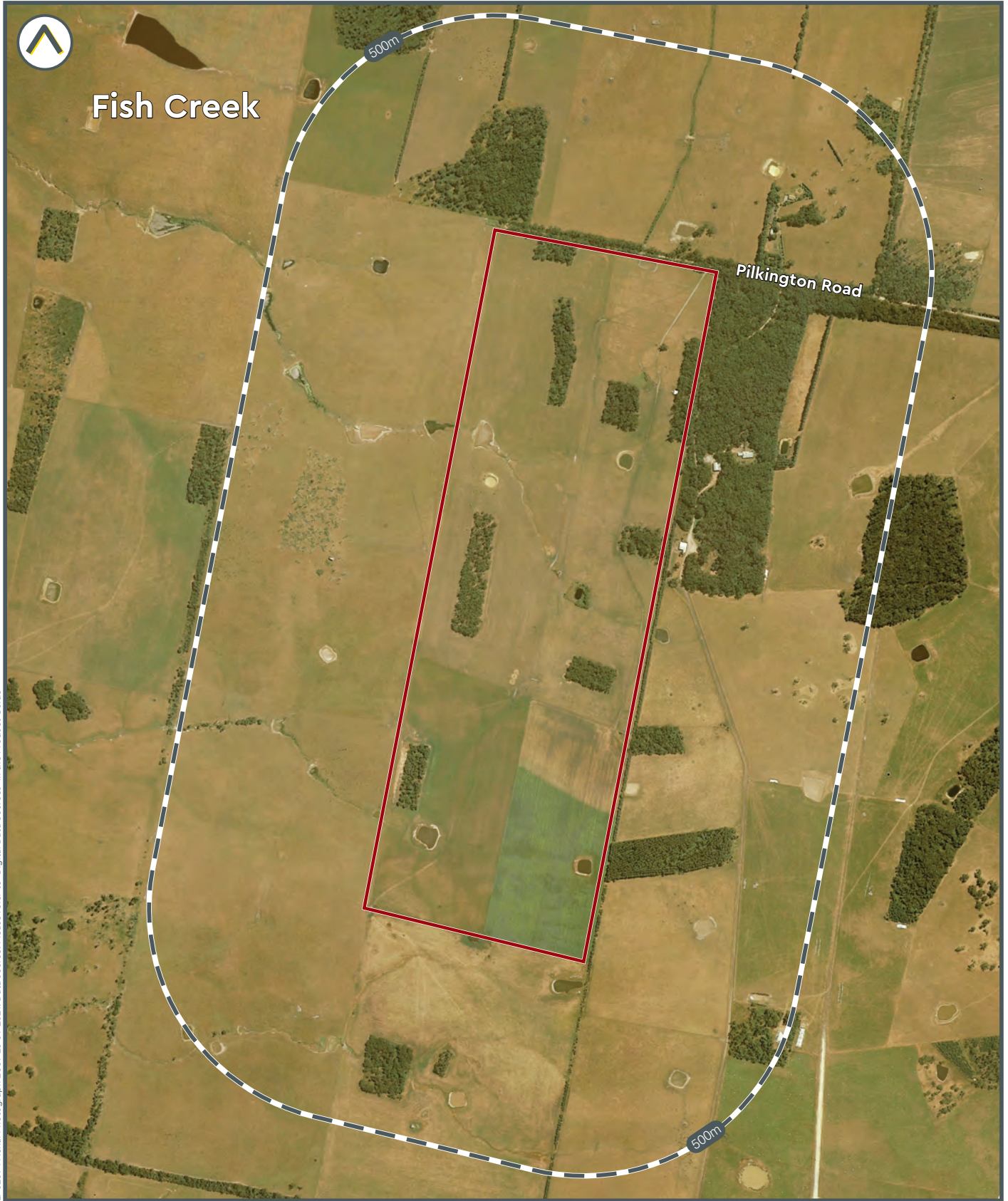
Subject area



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Historic Aerial Photograph - 2009



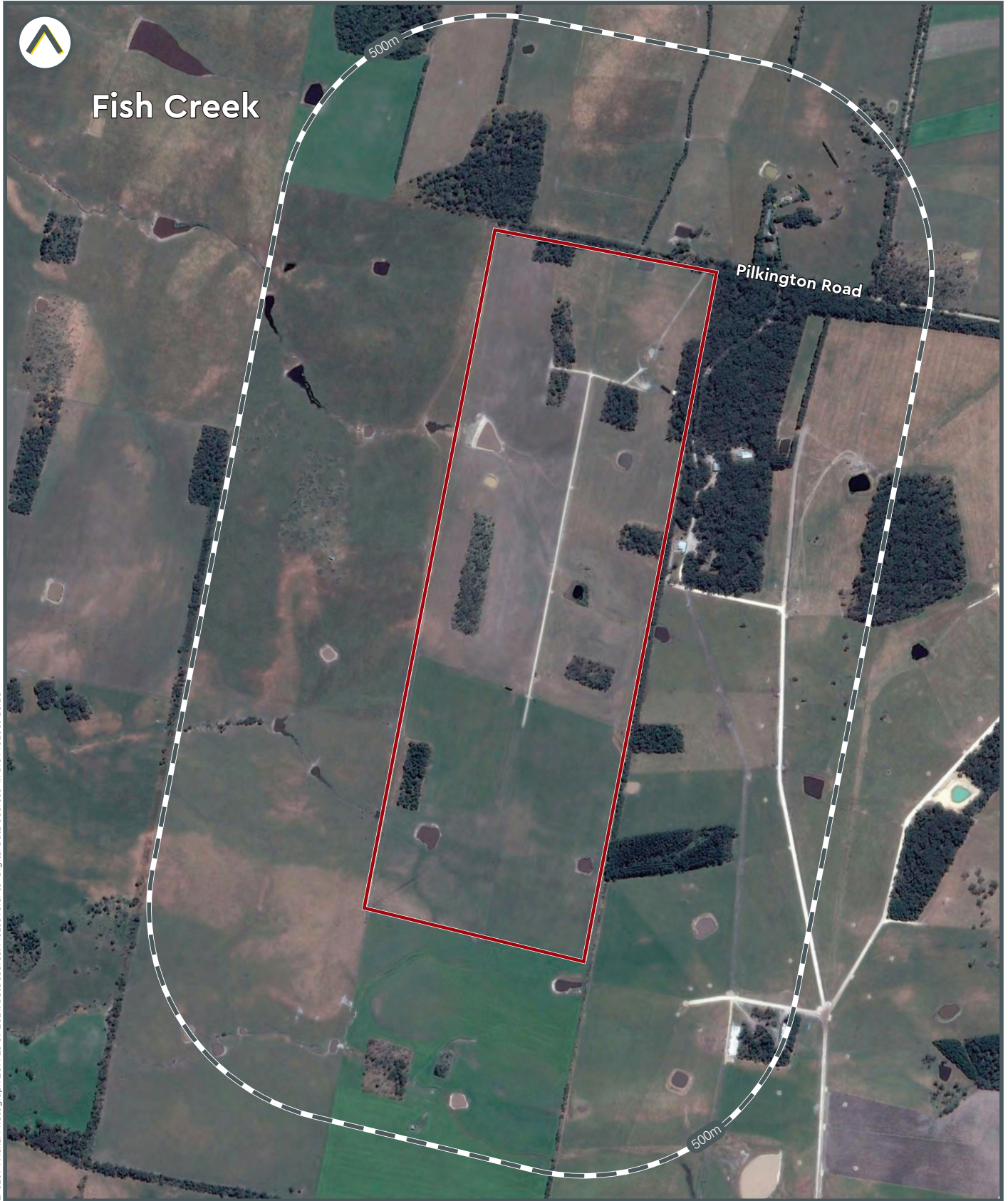
LI-02094\_Aerial Photograph 2009 23.09.2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area





Historic Aerial Photograph - 2014



LI-02094\_Aerial Photograph 2014\_23.09.2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

 Subject area

0 400m

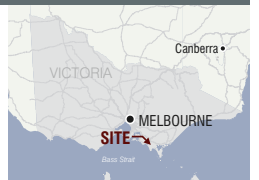
Historic Aerial Photograph - 2019



LI-02094\_Aerial Photograph 2019 23.09.2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

 Subject area

0 400m



Historic Aerial Photograph - 2020



LI-02094 Aerial Photograph 2020 23 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

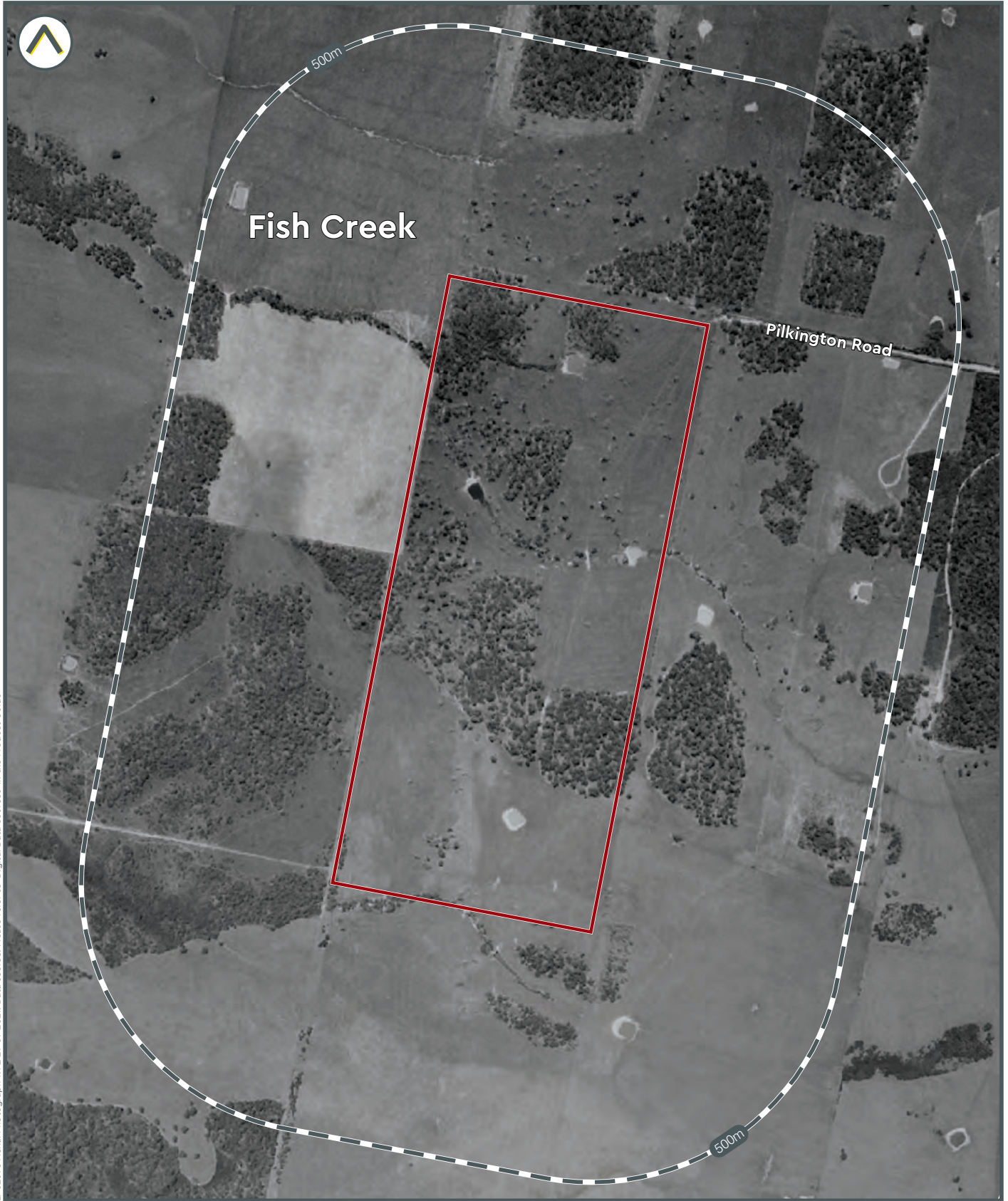
0 400m



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Historic Aerial Photograph - 1972



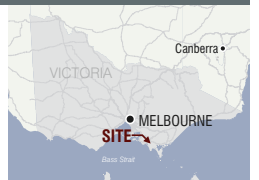
LI-02093 Aerial Photograph 1972-29-09-2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

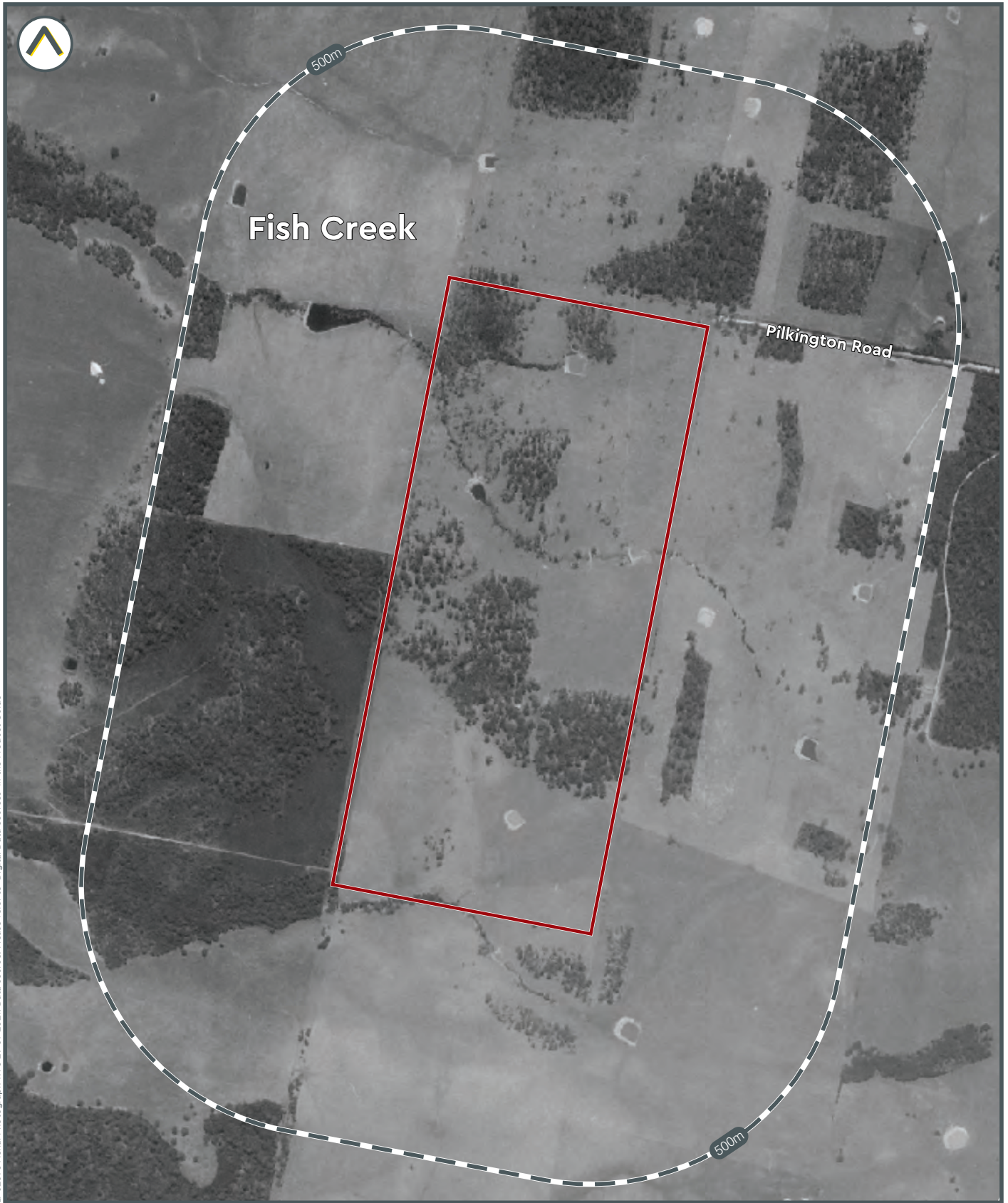
0 400m



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Historic Aerial Photograph - 1975



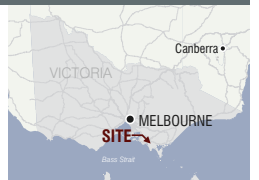
LI-02093 Aerial Photograph 1975 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

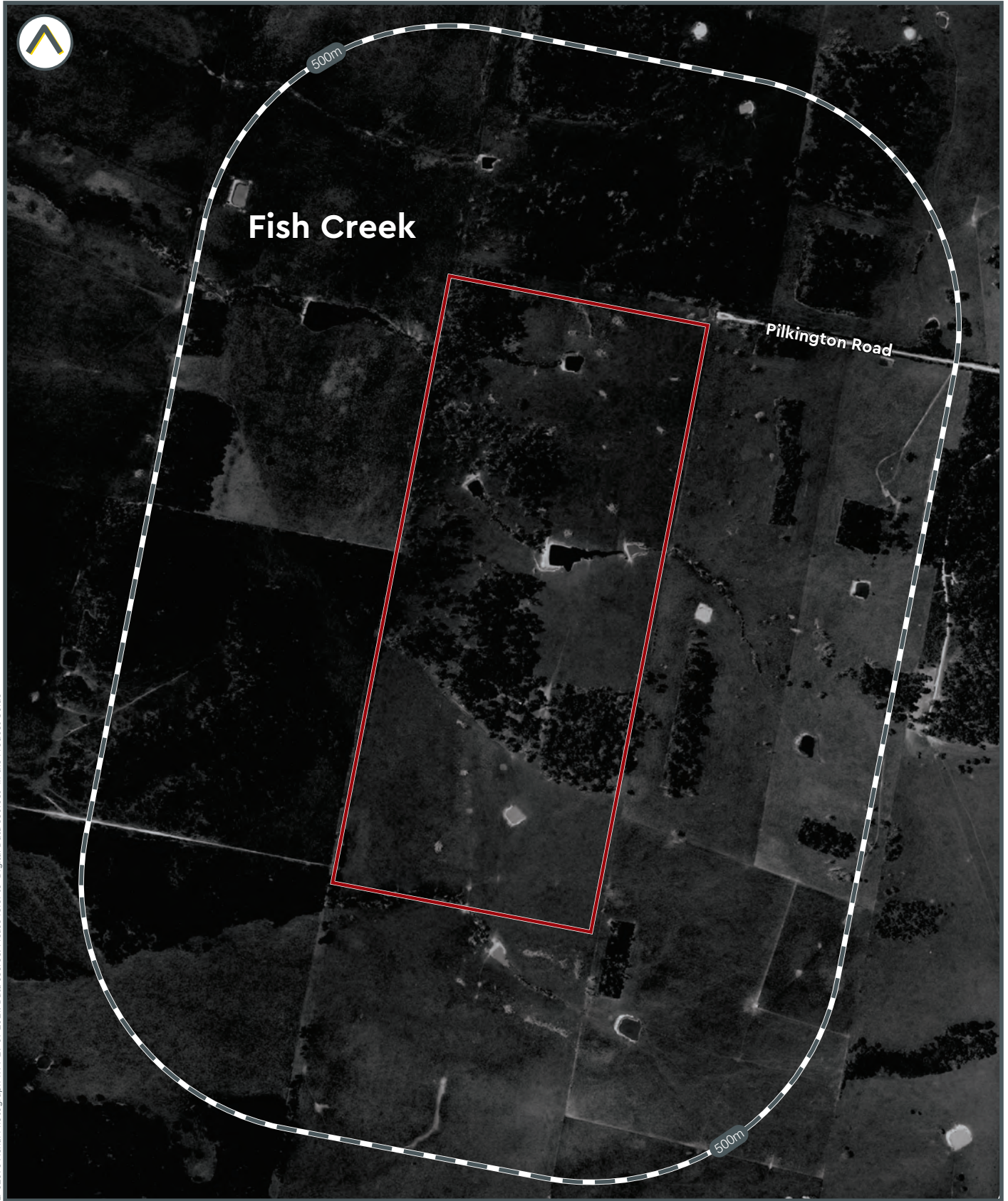
0 400m



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Historic Aerial Photograph - 1979



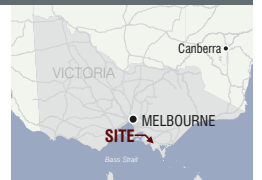
LI-02093 Aerial Photograph 1979-29-09-2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

 Subject area

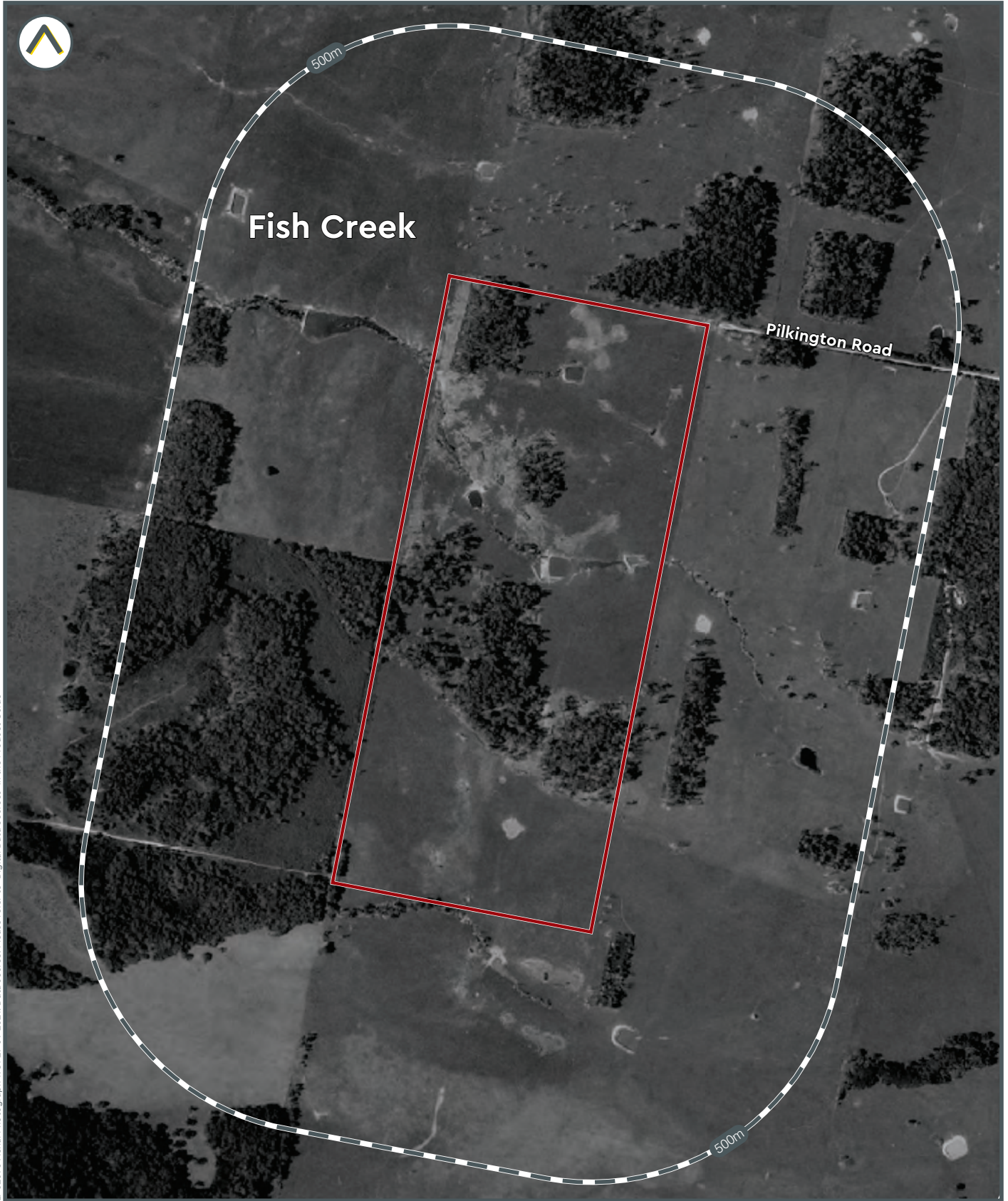
0 400m



Land Insight & Resources do 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 this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.



Historic Aerial Photograph - 1981



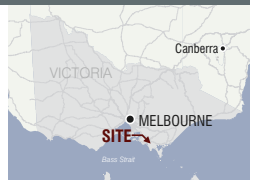
LI-02093 Aerial Photograph 1981.29.09.2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 400m



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Historic Aerial Photograph - 1991



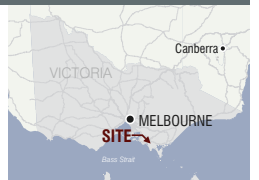
LI-02093 Aerial Photograph 1981/29/09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 400m

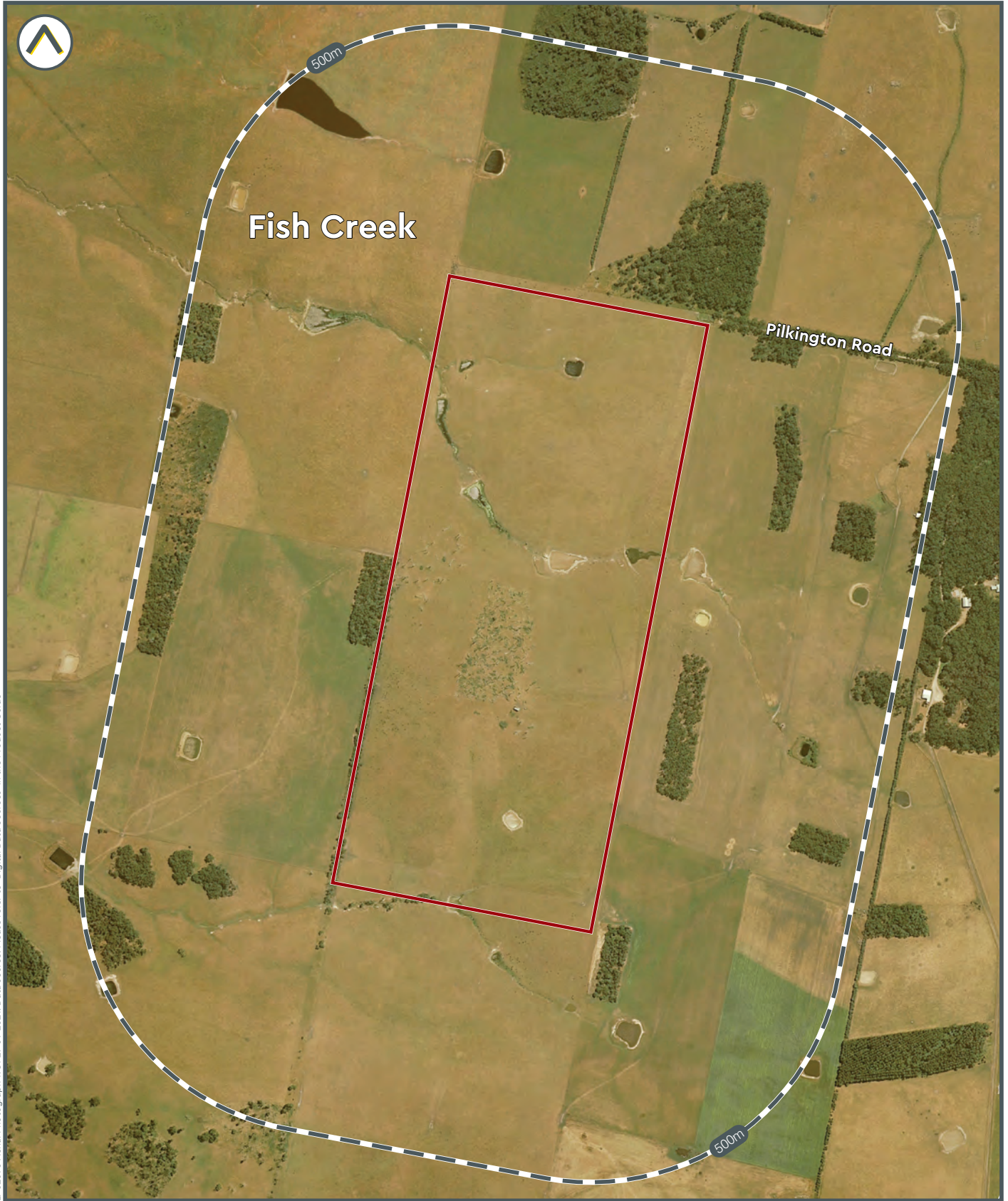


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Historic Aerial Photograph - 2009



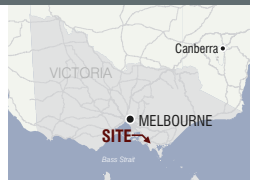
LI-02093 Aerial Photograph 1981/29/09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

 Subject area

0 400m



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Historic Aerial Photograph - 2014

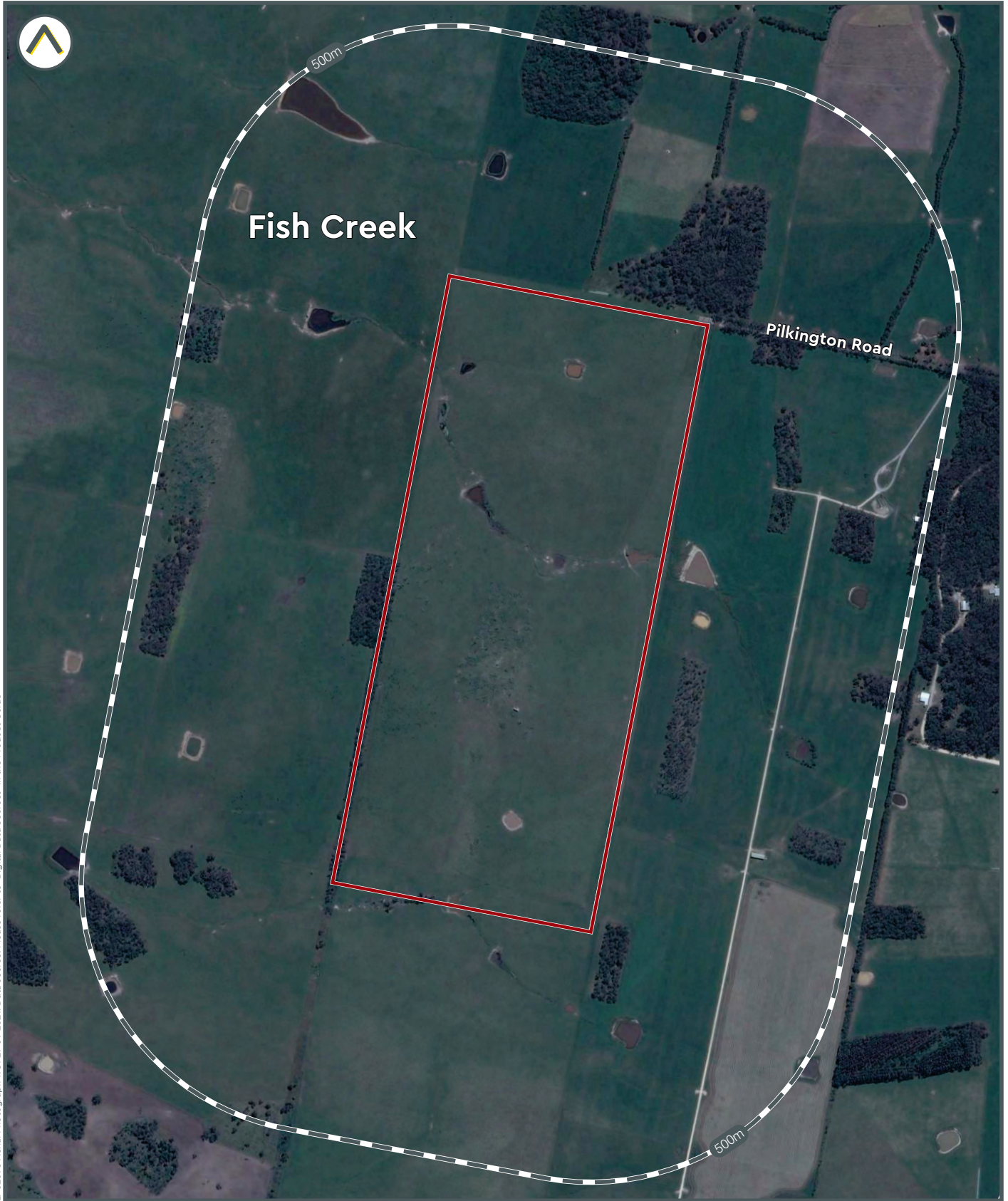


LI-02093 Aerial Photograph 1981/29/09/2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

 Subject area

 0 400m

Historic Aerial Photograph - 2015

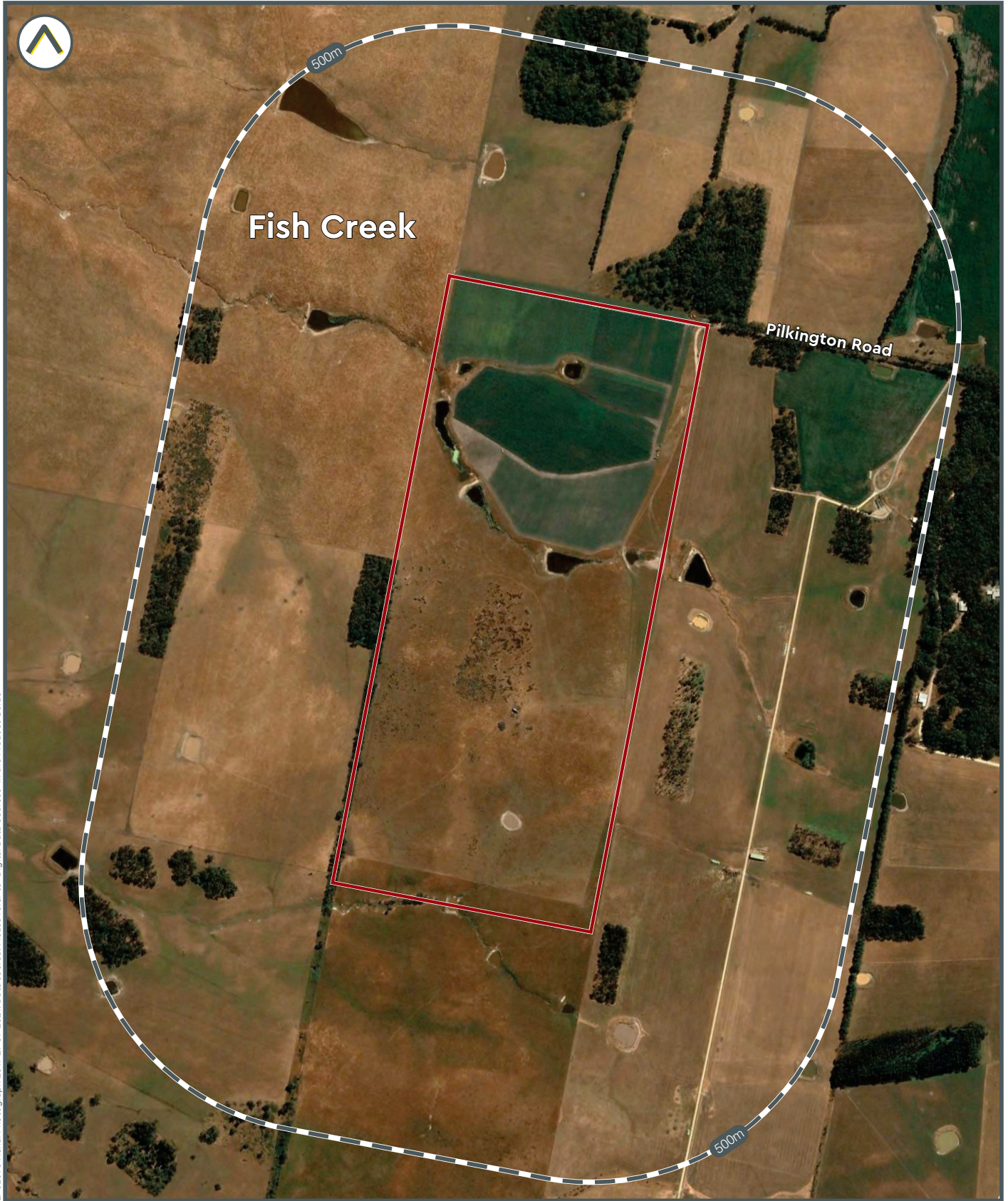


LI-02093 Aerial Photograph 1981/29/09/2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

 Subject area

0 400m

Historic Aerial Photograph - 2019



LI-02093 Aerial Photograph 2019 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

 Subject area

0 400m

Historic Aerial Photograph - 2020



LI-02093 Aerial Photograph 2020 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

 Subject area

0 400m



# Enviro-Screen

40 Moores Road  
Buffalo, VIC

24 September 2021



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**Attachment A - Report Maps**

**Attachment B - Historical Imagery**

**Land Insight Product Guide and Terms and Conditions**

# SUMMARY

 <b>Section 1</b>	<b>PROPERTY SETTING</b>	<b>Identified</b>
Sensitive Receptors Planning Control Heritage Soil and Land Information Geology and Topography		
 <b>Section 2</b>	<b>HYDROGEOLOGY</b>	<b>Identified</b>
Aquifer Groundwater Bores and Other Borehole investigations Groundwater Dependent Ecosystems (GDE) Hydrogeology Units Wetlands		
 <b>Section 3</b>	<b>ENVIRONMENTAL REGISTERS LICENCES AND INCIDENTS</b>	<b>Not Identified</b>
Contaminated Land Public Register Sites Regulate by Other Jurisdictional Body (Former Gaswork sites / PFAS sites) Licensing and Regulated Sites National Pollutant Inventory (NPI)		
 <b>Section 4</b>	<b>POTENTIALLY CONTAMINATED AREAS</b>	<b>Not Identified</b>
National Liquid Fuel Facilities National Waste Management Facilities		
 <b>Section 5</b>	<b>NATURAL HAZARDS</b>	<b>Identified</b>
Erosion risk Bushfire prone land Fire history Flood hazards		



# Section 1 Property Setting



## 1.1 SENSITIVE RECEPTORS

Map 1.1 (200m Buffer)

Sensitive receptor	Category	Distance (m)	Direction
Not identified	-	-	-

## 1.2 PLANNING CONTROLS

Map 1.2 (onsite)

### Zoning

Code	Zoning	Details
FZ	FARMING ZONE	-

### Planning Overlay

Type	Category	Details
Not identified	-	-

### Other Planning Information

Type	Category	Details
Not identified	-	-

### 1.3 HERITAGE

Map 1.3 (200m Buffer)

#### State and Local Heritage

Site ID	Site Name	Type	Details	Distance (m)	Direction
5802	-	Areas of Cultural Heritage Sensitivity (CHS)	-	0.0	onsite

#### Australian Heritage Database

Site ID	Site Name	Type	Details	Distance (m)	Direction
Not identified	-	-	-	-	-

Commonwealth Heritage List, National Heritage List and World Heritage Area.

### 1.4 SOIL AND LAND USE INFORMATION

Map 1.4a/1.4b (onsite)

#### Soil Landscape

Soil Landscape	PfcC7-2	fc	Soil Group	'Yellow duplex soils, Pale sands'
Description	Plain above flood level (relative relief <9m)			

#### Salinity

Salt Susceptibility	Low	Areas with yellow clayey soils but in which salt seeps have not been recorded
---------------------	-----	---

#### Radon

Radon Level	Bq/m <sup>3</sup>	7
-------------	-------------------	---

Typical radon levels in Australia are low and the values shown are the average values for each census district. For specific location, factors such as the local geology and house type could lead to different values. (ARPANSA).

#### Acid Sulfate Soil

Coastal Acid Sulfate Soil Hazard (CASS) (Table 1.4.1)	On the Property?	Within Buffer?
Class	Not identified	Not identified

#### National Acid Sulfate Soils Atlas

Atlas of Australian ASS (Table 1.4.2)	Bn(p4)	ASS in inland lakes, waterways, wetlands and riparian zones	Probability of Occurrence	Low Probability of occurrence
---------------------------------------	--------	---	---------------------------	-------------------------------

**Table 1.4.1. Classification for Coastal Acid Sulfate Soils (CASS)**

Class of Land as shown on ASS Planning Maps	
<b>Prospective Land</b>	Land that has the potential to contain Coastal Acid Sulfate Soils as indicated by geomorphology.
<b>Made Land</b>	Land that has been modified by human agency. Here, the geomorphic features that indicate the potential to contain Coastal Acid Sulfate Soil, no longer exist. Assessment of the potential depends on information such as geology maps or soil maps, that pre-dates modification.

Data represents Victorian coastal lands which have the potential to contain acid sulfate soil (CASS), i.e. it is prospective for CASS. The data is used for triggering an investigation of a site where proposed activities risk disturbing CASS. Department of Environment and Primary Industries.

**Table 1.4.2. Atlas of Australian Acid Sulfate Soils<sup>1</sup> (ASRIS) (CSIRO/NatCASS)**

<b>Probability of Occurrence of ASS<sup>1</sup></b>	
<b>A</b>	<b>High Probability of occurrence</b> - (>70% chance of occurrence in mapping unit)
<b>B</b>	<b>Low Probability of occurrence</b> - (6-70% chance of occurrence in mapping unit)
<b>C</b>	<b>Extremely low probability of occurrence</b> - (1-5% chance of occurrence in mapping unit)
<b>D</b>	<b>No probability of occurrence</b> - (<1% chance of occurrence in mapping unit)
<b>x</b>	<b>Disturbed ASS<sup>1</sup> terrain</b> - (ASS <sup>1</sup> material present below urban development).
<b>u</b>	<b>Unclassified</b> - (Insufficient information to classify map unit)
<b>Zones</b>	
<b>a</b>	Potential acid sulfate soil material and/or Monosulfidic Black Ooze (MBO).
<b>b, c</b>	Potential acid sulfate soil generally within upper 1 m.
<b>c, d, e</b>	ASS <sup>1</sup> generally within upper 1 m.
<b>f</b>	ASS <sup>1</sup> generally below 1 m from the surface
<b>g</b>	ASS <sup>1</sup> , generally below 3 m from the surface.
<b>h</b>	ASS <sup>1</sup> generally within 1 m of the surface.
<b>i, j</b>	ASS <sup>1</sup> generally below 1 m of the surface.
<b>k</b>	ASS <sup>1</sup> material and/or Monosulfidic Black Ooze (MBO).
<b>l, m, n, o, p, q</b>	ASS <sup>1</sup> generally within upper 1 m in wet / riparian areas.
<b>Subscripts to codes</b>	
<b>(a)</b>	Actual acid sulfate soil (AASS) = sulfuric material.
<b>(p)</b>	Potential acid sulfate soil (PASS) = sulfidic material.
<b>(q)</b>	Monosulfidic Black Ooze (MBO) is organic ooze enriched by iron monosulfides.
<b>Confidence levels</b>	
<b>(1)</b>	All necessary analytical and morphological data are available
<b>(2)</b>	Analytical data are incomplete but are sufficient to classify the soil with a reasonable degree of confidence
<b>(3)</b>	No necessary analytical data are available, but confidence is fair, based on a knowledge of similar soils in similar environments
<b>(4)</b>	No necessary analytical data are available, and classifier has little knowledge or experience with ASS, hence classification is provisional

<sup>1</sup>Acid Sulfate Soils (ASS) are all those soils in which sulfuric acid may be produced, is being produced, or has been produced in amounts that have a lasting effect on main soil characteristics (Pons 1973). Acid sulfate soil (ASS) may include PASS or AASS + PASS. Potential acid sulfate soil (PASS) = sulfidic material. Actual acid sulfate soil (AASS) = sulfuric material.

## 1.5 GEOLOGY AND TOPOGRAPHY

Map 1.5 (onsite)

### Geology

Map Sheet	Symbol	Name	Geologic History	Lithology	Description
1:50,000 Geological Units	Qa1	Alluvium (Qa1): generic	Pleistocene to Holocene (channelled stream flow-fluvial [environment])	silt [material] (significant); sand (significant); gravel [material] (significant)	Gravel, sand, silt: variably sorted and rounded; generally unconsolidated; includes deposits of low terraces; alluvial floodplain deposits
	Ksw	Wonthaggi Formation (Ksw): generic	Early Cretaceous to Early Cretaceous (channelled stream flow - fluvial [environment]; over-bank stream flow - fluvial [environment])	sandstone (major [proportion]); siltstone (minor [proportion]); conglomerate (minor [proportion]); coal (minor [proportion])	Lithic volcanoclastic sandstone, arkose, siltstone, minor conglomerate and coal; fluvial

### Naturally Occurring Asbestos Potential (NOA)

Category	On the Property?	Within Buffer?
Not identified	-	-

### Topography

Topography	40 mAHD
------------	---------



## Section 2 Hydrogeology



### 2.1 HYDROGEOLOGY AND GROUNDWATER BORES

Map 2.1 (2000m Buffer)

	On the Property?	Within Buffer?
Aquifer Type	Fractured or fissured, extensive aquifers of low to moderate productivity	Porous, extensive aquifers of low to moderate productivity Fractured or fissured, extensive aquifers of low to moderate productivity
Designated Water Supply Catchments	Not identified	Not identified
Depth to Watertable (m)	10 - 50	<5 - >50
Wetlands	Not identified	Not identified
Groundwater Salinity (mg/L)	3500	1000 - 3500

#### Groundwater Quality Restricted Use Zones

Number	Address	Site history	Restrictions on Use	Distance (m)	Direction
Not identified	-	-	-	-	-

#### Groundwater Bores

Map ID	Groundwater Bore ID	Authorised Purpose	Completion Date	Drilled Depth (m)	Final Depth (m)	SWL (m)	Salinity (mg/l)	Yield (L/s)	Distance (m)	Direction
9	318828	Unknown	31/12/1917	144.0	144.2				270.6	West
10	77659	Stock and Domestic	22/11/1988	12.0	12.5			0.758	399.0	North
11	WRK983946	Unknown		25.0	25.0				675.7	North-east

Map ID	Groundwater Bore ID	Authorised Purpose	Completion Date	Drilled Depth (m)	Final Depth (m)	SWL (m)	Salinity (mg/l)	Yield (L/s)	Distance (m)	Direction
6	WRK060461	Stock and Domestic	1/12/2010	52.0	51.8				711.2	West
7	77645	Stock and Domestic	1/01/1970	0.0	0.0				728.3	West
12	WRK991052	Unknown		25.0	25.0				768.6	North-east
13	WRK980460	Unknown		25.0	25.0				870.8	North-east
8	77651	Stock and Domestic	6/04/1973	52.0	51.8				894.2	North-west
5	77654	Stock and Domestic	3/07/1980	27.0	27.0			0.505	1338.9	West
4	77643	Stock and Domestic	31/12/1970	20.0	20.0				1427.0	West
3	77655	Stock and Domestic	29/06/1980	30.0	30.0			0.505	1646.0	West
2	77661	Stock and Domestic	1/01/1988	17.0	17.0				1714.7	West
1	WRK039094	Stock and Domestic		0.0	0.0				1788.9	West

### Groundwater Bores Driller Lithology Details

Groundwater Bore ID	From Depth – To Depth (m)	Lithology	Distance (m)	Direction
318828	#N/A		270.6	West
77659	0m-0.4m 0.4m-2m 2m-3.3m 3.3m-12.5m	Topsoil Orange And Grey Clay Light Blue And Brown Clay Sandstone And Clay Layers	399.0	North
WRK983946	#N/A		675.7	North-east
WRK060461	#N/A		711.2	West
77645	#N/A		728.3	West
WRK991052	#N/A		768.6	North-east
WRK980460	#N/A		870.8	North-east
77651	#N/A		894.2	North-west
77654	#N/A		1338.9	West
77643	#N/A		1427.0	West
77655	#N/A		1646.0	West
77661	#N/A		1714.7	West
WRK039094	#N/A		1788.9	West

## 2.2 HYDROGEOLOGY AND OTHER BOREHOLES

### Map 2.2 (500m Buffer)

	On the Property?	Within Buffer?
Groundwater Management Areas	Not identified	-
Hydrogeologic Unit	Surficial Sediment Aquifer (porous media - unconsolidated) Upper Tertiary/Quaternary Aquitard (porous media - unconsolidated)	Mesozoic Fractured Rock Aquifer Surficial Sediment Aquifer (porous media - unconsolidated) Upper Tertiary/Quaternary Aquitard (porous media - unconsolidated)



### Groundwater Dependent Ecosystems (GDE)

	On the Property?	Within Buffer?
Aquatic	High potential for GW interaction	High potential for GW interaction
Terrestrial	Not identified	Low potential for GW interaction Moderate potential for GW interaction

*Aquatic - Ecosystems that rely on the Surface expression of groundwater.*

*Terrestrial - Ecosystems that rely on the Subsurface expression of groundwater.*

### Other Known Borehole Investigations (Coal Seam Gas (CSG), Petroleum Wells and Other Boreholes)

Borehole ID	Purpose	Project	Client/ License	Date Drilled	Depth (m)	Distance (m)	Direction
318828	Coal	Dept. Manufacturing & Industry	Department of Manufacturing & Industry Development	4/02/1918	144.2	277.0	West



# Section 3 Environmental Registers, Licences and Incidents



## 3.1 CONTAMINATED LAND PUBLIC REGISTER

Map 3.1 (1000m Buffer)

### Environmental Audit Reports

CARMS No.	Address	Audit Category	Distance (m)	Direction
Not identified	-	-	-	-

### Priority Site Register

Notice No.	Address	Issue	Distance (m)	Direction
Not identified	-	-	-	-

**Table 3.1.1 Sections 53X and 53V of the Environment Protection Act 1970**

EPA Types of Environmental Audits	
<b>53X Audits</b>	A 53X ('condition of the environment') audit is most frequently used by the planning system and verifies that potentially contaminated land can be used for a specific use (industrial, commercial or residential). From a 53X audit comes either a certificate or statement of environmental audit.
<b>53V Audits</b>	A 53V ('risk of harm') audit is most commonly used by EPA to understand the risk to the environment posed by an industrial activity or to validate that cleanup of contaminated land or groundwater has occurred. The 53V audit assesses the risk of any possible harm to a site caused by an industrial process or activity, waste substance or noise. This includes audits associated with the construction and operation of landfills.

### 3.2 SITES REGULATED BY OTHER JURISDICTIONAL BODY

Map 3.2 (2000m Buffer)

#### Defence, Military Sites and UXO Areas

Site name	Type*	Description	Distance (m)	Direction
Not identified	-	-	-	-

\*RCIP (Regional Contamination Investigation Program). UXO (Unexploded Ordnance Areas)

#### Former Gasworks Sites

Site name	Description	Distance (m)	Direction
Not identified	-	-	-

#### PFAS Sites

Site name	Description	Distance (m) *	Direction
Not identified	-	-	-

#### National Pollutant Inventory (NPI)

Facility name	Address	Primary ANZSIC Class	Latest report	Distance (m)	Direction
Not identified	-	-	-	-	-

**Licences**

Licence No.	Type	Company Name	Address	Details	Distance (m)	Direction
Not identified		-	-	-	-	-

If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.

**Approvals**

Doc No.	Type	Company Name	Address	Details	Distance (m)	Direction
Not identified		-	-	-	-	-

If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.

**Notices**

Transaction No.	Type	Company Name	Address	Distance (m)	Direction
Not identified		-	-	-	-

If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.

**Table 3.3.1 EPA Regulatory Instruments Explanation**

<b>Approvals</b>	
<b>Works approval is required for industrial and waste management activities that have the potential for significant environmental impact.</b>	
<b>Works Approval</b>	EPA's works approval process is designed to ensure the best and most cost-effective environmental outcomes on projects are achieved. Without works approvals there is an increased risk of industrial projects causing pollution issues and requiring expensive retrofitting.
<b>30A Approval</b>	Section 30A is an overriding provision of the Environment Protection Act 1970 (the Act) under which EPA can authorise discharges, emissions, storage, treatment, disposal and handling of waste in emergencies and other temporary situations that would otherwise be an offence under the Act. 30A approvals are not issued lightly, as they permit activities that would not normally be allowed.
<b>Notices</b>	
<b>Remedial notices are served to prevent or remedy a range of non-compliances or likely non-compliances. Remedial notices are not punitive measures.</b>	
<b>Clean Up Notice</b>	Clean up notices (CUN) are issued under section 62A of the <i>Environment Protection Act 1970</i> . They aim to prevent further contamination and impact on beneficial uses through removal of waste, undertaking clean-up activities, ongoing management of pollution, altered handling, storage or location of industrial or prescribed industrial waste.
<b>Minor Works Pollution</b>	Minor works pollution abatement notices (MWPANs) are issued under section 31B of the EP Act. They aim to prevent further occurrence of pollution or potential environmental risk through installation of risk controls and changes to onsite processes and practices in urgent situations.
<b>Pollution Abatement Notice</b>	Pollution abatement notices are issued under section 31A of the <i>Environment Protection Act 1970</i> . They aim to prevent further occurrence of pollution or potential environmental risk through installation of risk controls and changes to on-site processes and practices.
<b>Post closure pollution abatement notices (PC PAN)</b>	Post Closure Pollution Abatement Notices (PAN's) are formal legal enforceable Notices issued by EPA on former landfill sites. The environmental risks posed by landfill sites continue for a significant period of time after waste acceptance has ceased.

**Table 3.3.1 EPA Regulatory Instruments Explanation**

<b>Licences</b>	
<b>EPA licence is required for all scheduled premises. It allows the licence-holder to operate and sets conditions that they must meet.</b>	
<b>Licence</b>	Licences contain standard conditions that aim to control the operation of the premises so that there is no adverse effect on the environment. These conditions address areas such as waste acceptance and treatment, air and water discharges, and noise and odour.
<b>Amalgamated Licence</b>	An amalgamated licence is a legal document that contains standard conditions to control the operation of scheduled premises to minimise impacts on the environment. These conditions address areas such as waste acceptance and treatment, air and water discharges, noise and odour.



# Section 4 Potentially Contaminated Areas



## 4.1 POTENTIALLY CONTAMINATING ACTIVITIES

Map 4.1 (500m Buffer)

### Liquid Fuel Facilities

Site name	Category	Location	Status*	Distance (m)	Direction
Not identified	-	-	-	-	-

### Waste Management Facilities & Recycling Centres

Site name	Category	Location	Status*	Distance (m)	Direction
Not identified	-	-	-	-	-

Liquid Fuel Facilities Datasets, representing the spatial locations of liquid fuel depots, refineries, terminals and petrol stations present in the Australian Government National Liquid Fuel Facilities Dataset and Petrol stations identified by Land Insights.

Waste Management Facilities, representing the spatial locations of reprocessing facilities, transfer stations and landfills present in the Australian Government National Waste Management Facilities Dataset and Waste/Recycling facilities identified by Land Insights.

A more comprehensive list of all Potentially Contaminating Activities is available in the Due Diligence Insight report.

**\*Status:**

Data is current as when this report was created. However due to the turnover of business locations, some addresses may be former. Current: business is operating on the day this report was issued.

Former: business that have been closed or discontinued 1 to 2 years prior from the day this report was issued. All former sites older than 2 years will be reported in the 'Historical Potentially Contaminating Activities' section 4.4 in this report.

## 4.2 HISTORICAL POTENTIALLY CONTAMINATING ACTIVITIES

(not mapped)

### 1900 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

### 1905 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

### 1915 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

### 1925 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

### 1935 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

### 1940 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

### 1945 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

### 1955 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

**1965 Historical Business Data**

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

**1970 Historical Business Data**

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

**1975 Historical Business Data**

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

**1980 Historical Business Data**

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

**1990 Historical Business Data**

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

**2005 Historical Business Data**

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

**2010 Historical Business Data**

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

**2015 Historical Business Data**

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

Land Insight uses a number of address geocoding techniques and characterised them according to the following criteria: completeness (match rates) and positional accuracy. When a historical street address does not contain complete details or a match is not found, a record identified as being in the surrounding area will be included for reference and the accuracy of the data is approximate only. The positional accuracy of the records is listed below:



## Historical data positional accuracy and georeferencing results explanation

Positional accuracy	Georeferenced	Description
Address	Located to the address level	<i>When street address and names fully match.</i>
Street	Located to the street centroid	<i>When street names match but no exact address was found. Location is approximate.</i>
Place	Located to the structure, building or complex	<i>When building, residential complex or structure name match but no exact address was found. Location is approximate.</i>
Suburb	Located to the suburb area	<i>When suburb name match but no exact address was found. Location is approximate.</i>

The data used in this section was extracted from range of historical commercial trade directories and historical business listing information. The business addresses were geocoded using historical information and cannot be relied upon as some of the addresses no longer exist. From 2005, the historical business records in this section are considered more accurate as information was extracted from digital directories with geographic coordinate location information available. For more information on how these records were geocoded and the methodology used by Land Insight, contact us at [info@landinsight.co](mailto:info@landinsight.co).

Historical Industries or business activities deemed to be of negligible or lesser risk are not reported. Please note that any record not identified within this section (due to error or unforeseen omission) does not necessarily mean that the screened area is not potentially contaminated or free of any risks.



## Section 5 Natural Hazards



### 5.1 Natural Hazards

Map 5.1 (500m Buffer)

#### Erosion Risk


Category	On the Property?	Within Buffer?
Not identified	-	-

#### Fire Hazard

Category	On the Property?	Within Buffer?
Bush Fire Prone Area (BLA)	Yes	Yes
Fire History	-	Not identified

#### Flood Hazard

Name	On the Property?	Within Buffer?
Not identified	-	-



# Understanding your report

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Your Report has been produced by Land Insight and Resources (Land Insight).

Your Report is based on information available from public databases and sources at the date of reporting. The information gathered relates to land that is within a 200 to 2000m radius (buffer zone) from the boundaries of the Property. A smaller or larger radius may be applied for certain records (as listed under records and as shown in report maps).

While every effort is made to ensure the details in your Report are correct, Land Insight cannot guarantee the accuracy or completeness of the information or data provided.

**The report provided by Land Insight includes** data listed on page 4 (table of contents). All sources of data and definitions are provided in the Product Guide (Attached). For a full list of references, metadata, publications or additional information not provided in this report, please contact [info@liresources.com.au](mailto:info@liresources.com.au)

**The report does not include** title searches; dangerous good searches or; property certificates (unless requested); or information derived from a physical inspection, such as hazardous building materials, areas of infilling or dumping/spilling of potentially contaminated materials. It is important to note that these documents and an inspection can contain information relevant to contamination that may not be identified by this Report.

Due to the ongoing nature of database development and frequency of updates provided by various state government regulators the data displayed within this report is only current from date of production.

**This Report, and your use of it, is regulated by Land Insight's Terms and Conditions (See Land Insight's Product Guide).**



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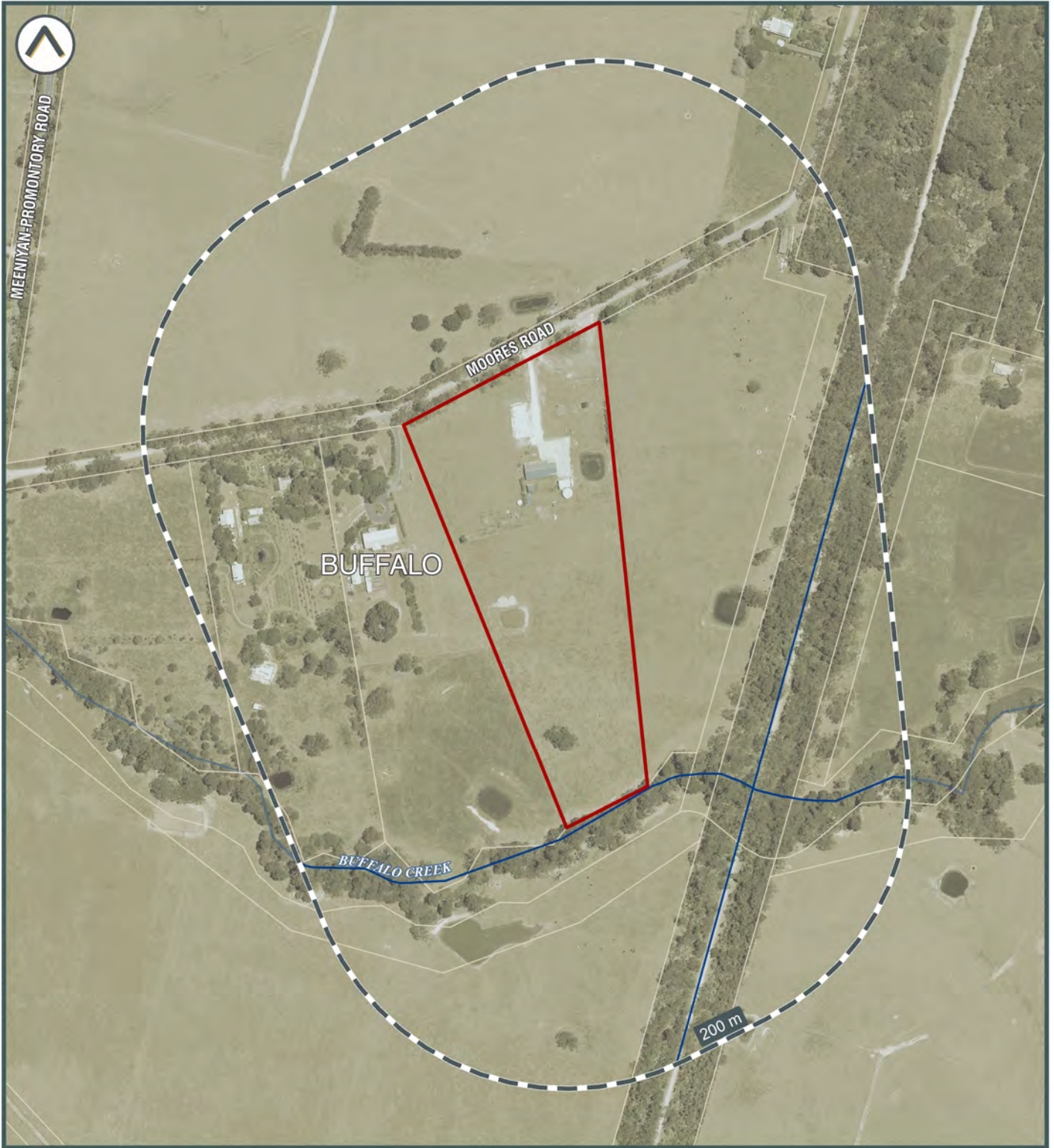


# Appendix A

REPORT MAPS



Subject Area and Sensitive Receptors



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Subject area <all other values>

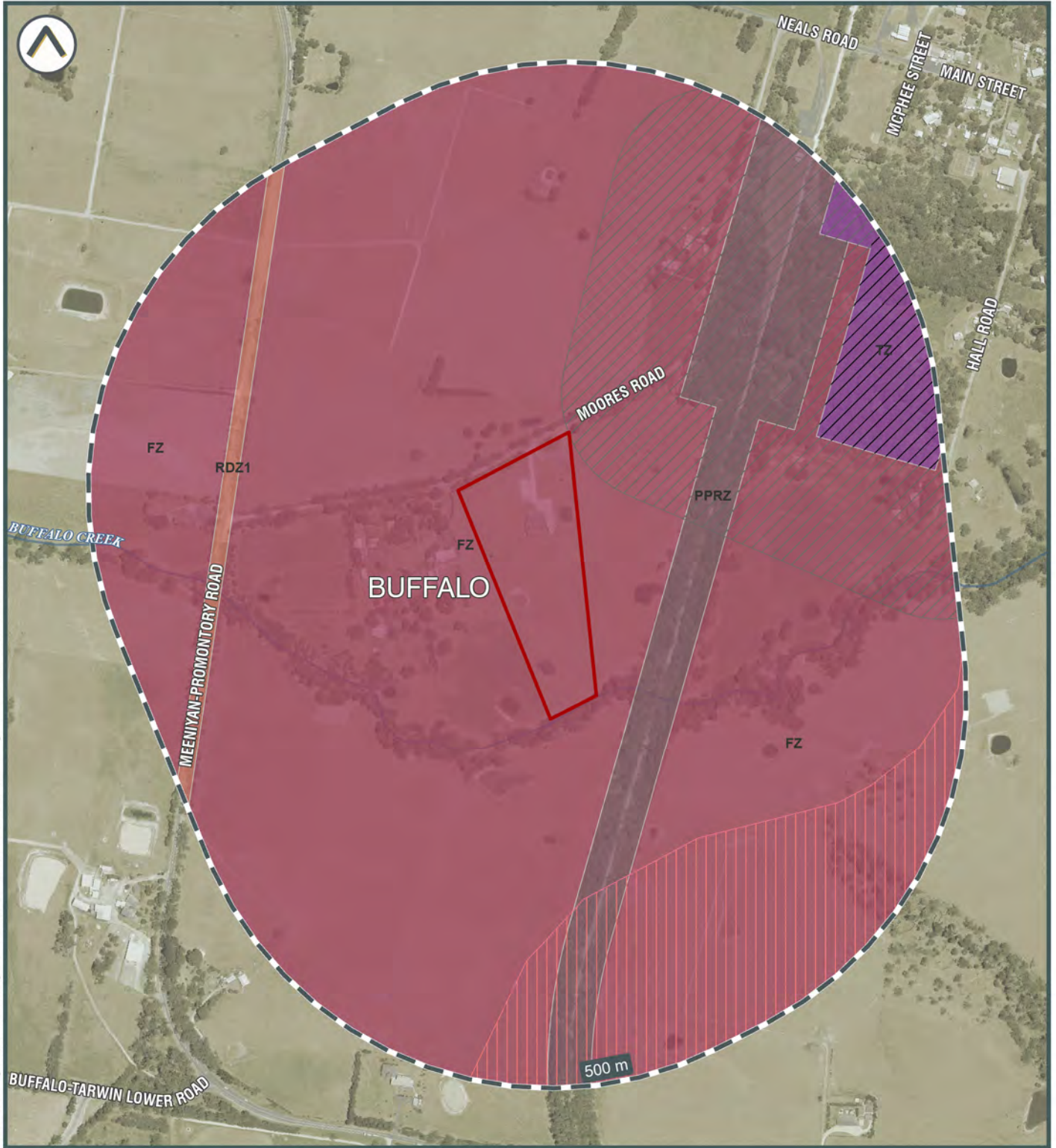


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Planning Controls



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Subject area	BMO	FZ   Farming Zone
ESO	RO	PPRZ   Public Park And Recreation Zone
		RDZ1   Road Zone - Category 1
		TZ   Township Zone



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Heritage



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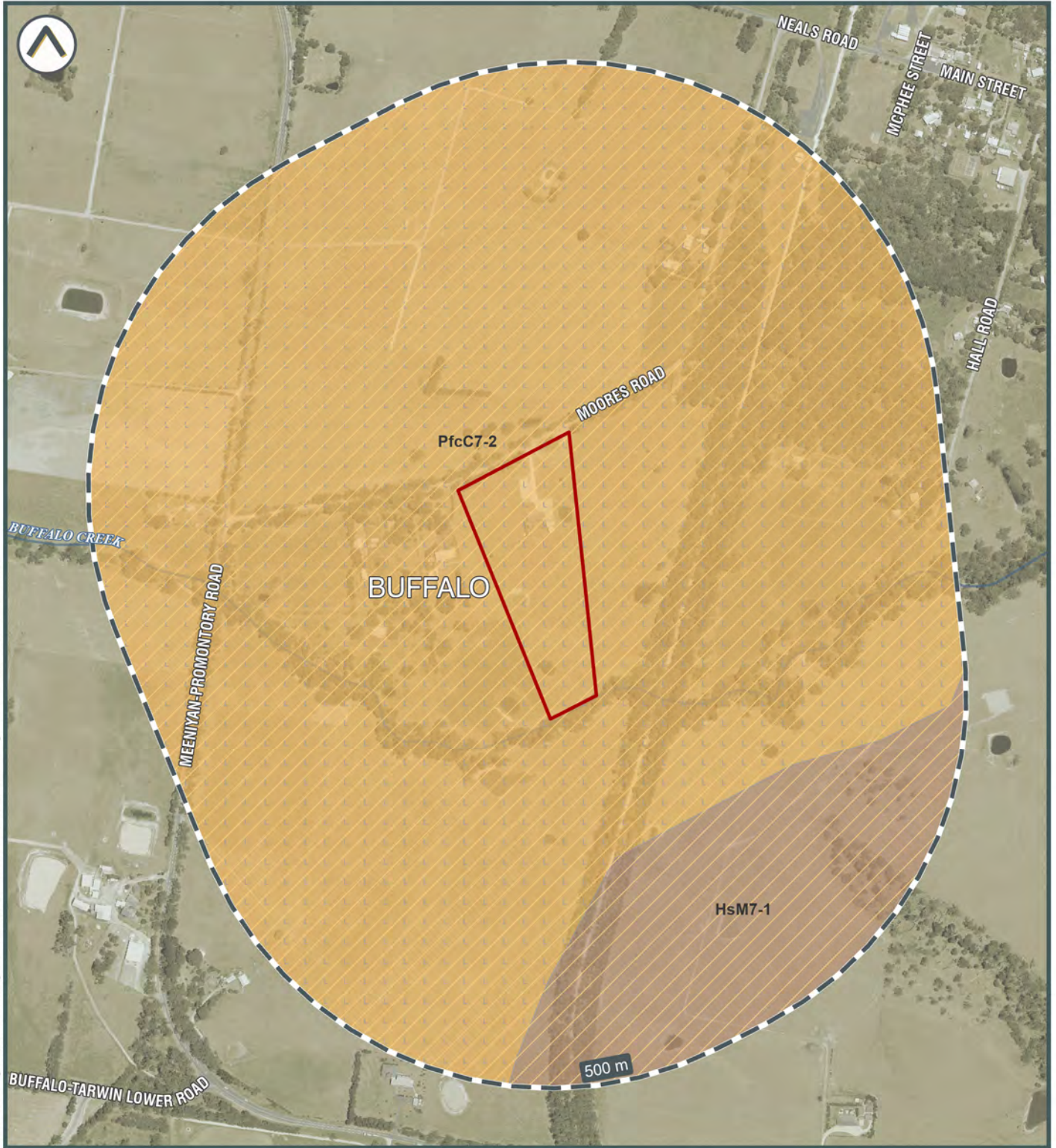
- Subject area
- Victorian Heritage Inventory (VHI)
- Areas of Cultural Heritage Sensitivity (CHS)
- Victorian Heritage Register (VHR)
- Commonwealth Heritage List (CHL)
- National Heritage List (NHL)
- World Heritage Area (WHA)







Soil Landscape and Salinity



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- Subject area
- Salinity Hazard: Low
- Soil Landscape: HsM7-1, Hill (relative relief 90-300m)
- Soil Landscape: PfcC7-2, Plain above flood level (relative relief <9m)
- Radon Level (Bq/m3): 5-19

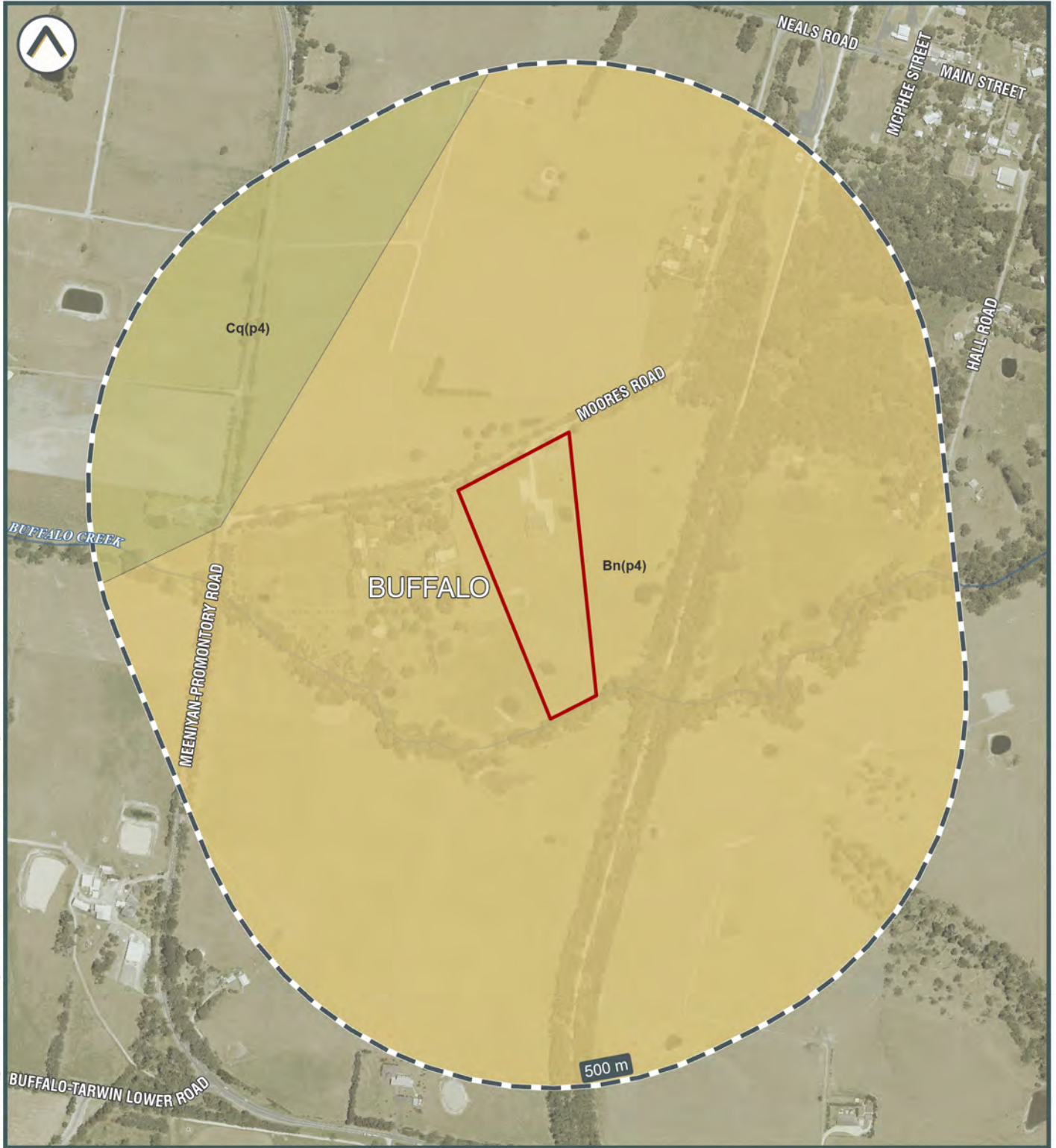


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Acid Sulfate Soils



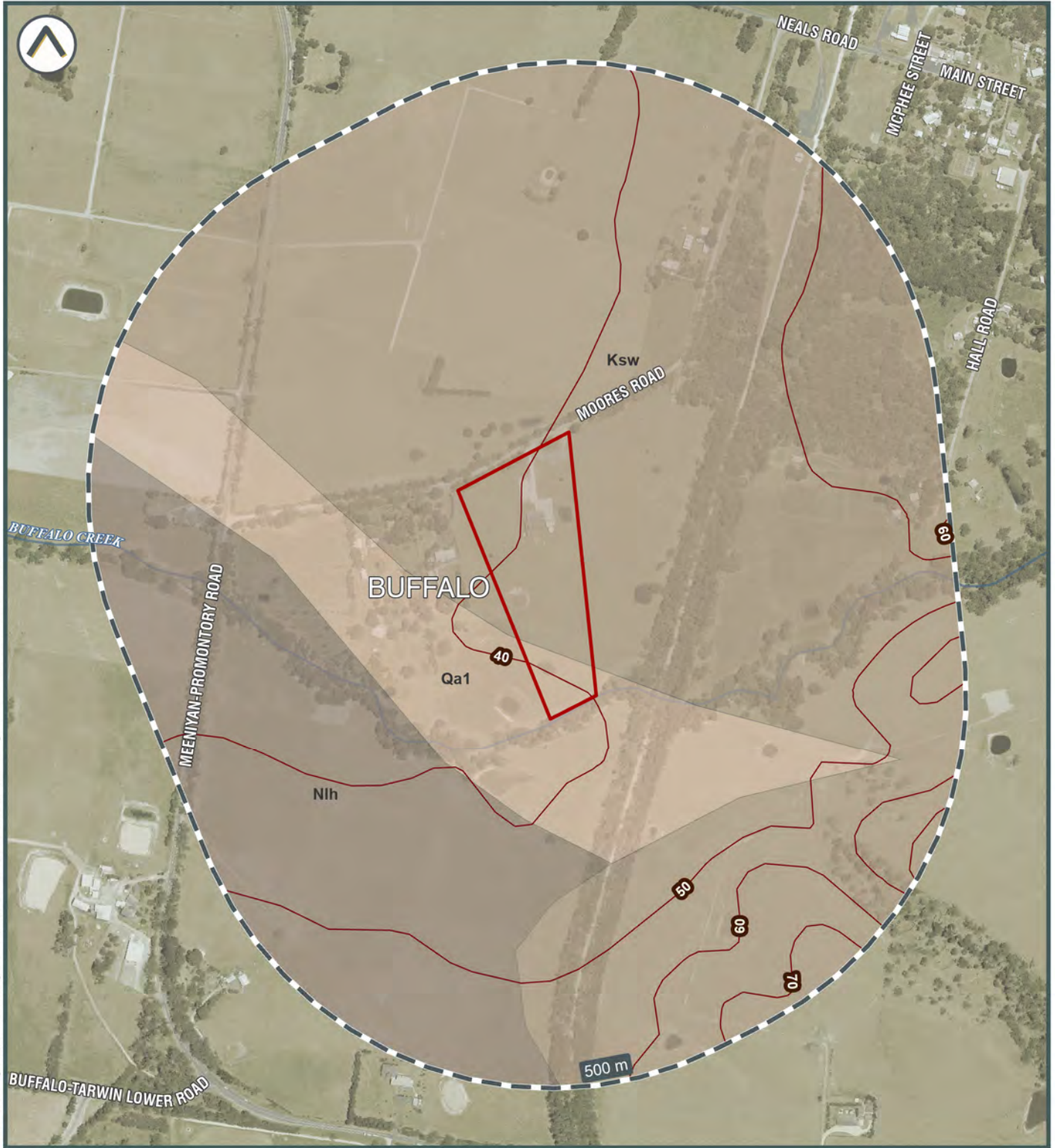
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- Subject area
- Bn(p4) | ASS in inland lakes, waterways, wetlands and riparian zones
- Cq(p4) | ASS in inland lakes, waterways, wetlands and riparian zones





Geology and Topography



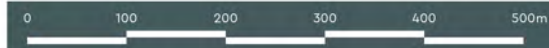
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Subject area  
 Topographic contour (m)

1:250,000 Geological Units

Ksw | Lithic volcanoclastic sandstone, arkose, siltstone, minor conglomerate and coal; fluvial  
 Nlh | Sand, silt, gravel: various shades of brown, yellow, red, white; variably sorted; variably rounded; crudely to well-bedded; commonly strongly oxidised with ironstone near the top and also within the formation

Qa1 | Gravel, sand, silt: variably sorted and rounded; generally unconsolidated; includes deposits of low terraces; alluvial floodplain deposits

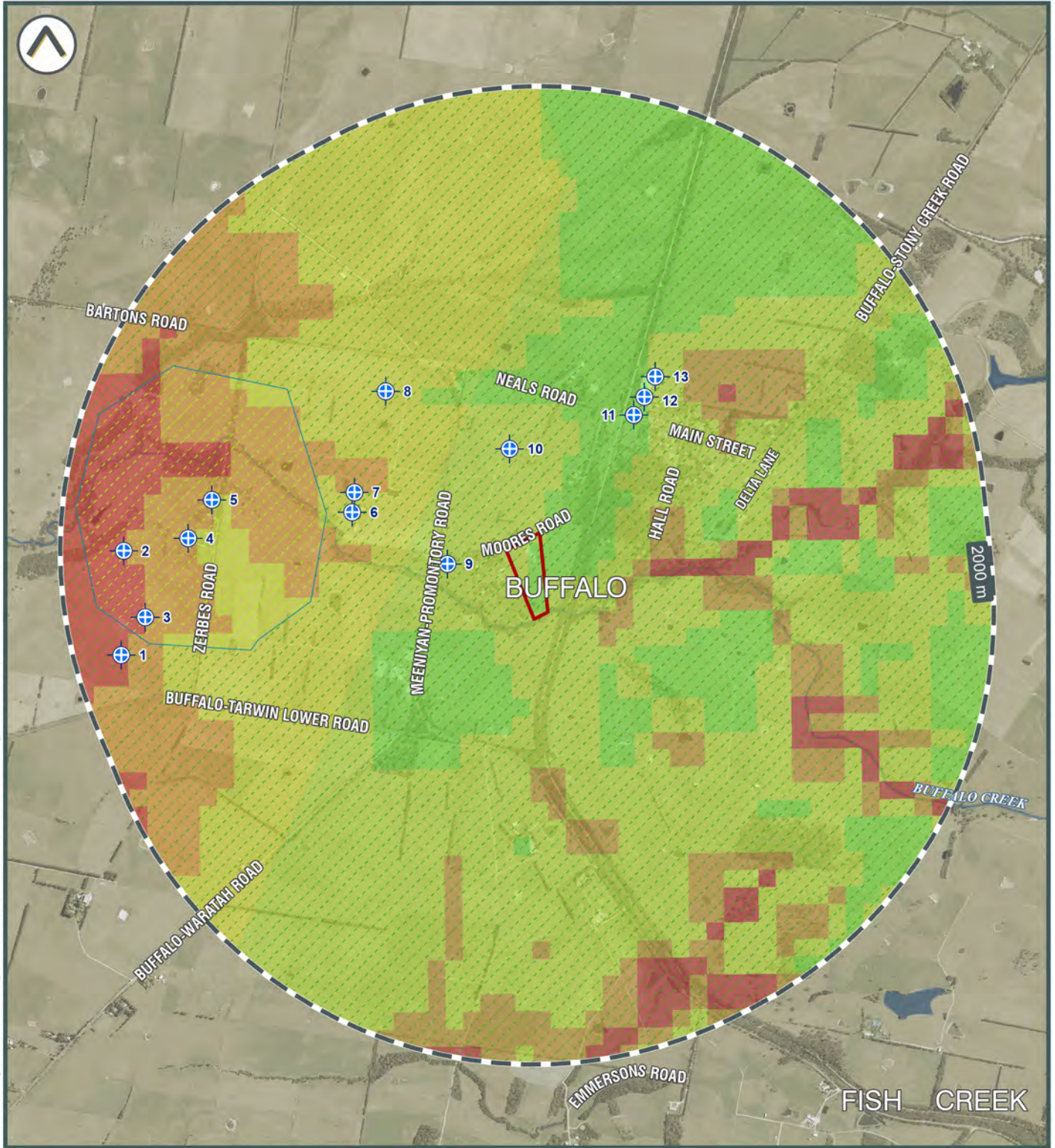


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Hydrogeology and Groundwater Boreholes



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- Subject area
- Groundwater bores
- Groundwater salinity (mg/l)  
500 - 1,000  
1,100 - 5,000
- Depth to Watertable (m)  
<5  
5-10  
10-20  
20-50
- Aquifer type  
Fractured or fissured, extensive aquifers of low to moderate productivity  
Porous, extensive aquifers of low to moderate productivity

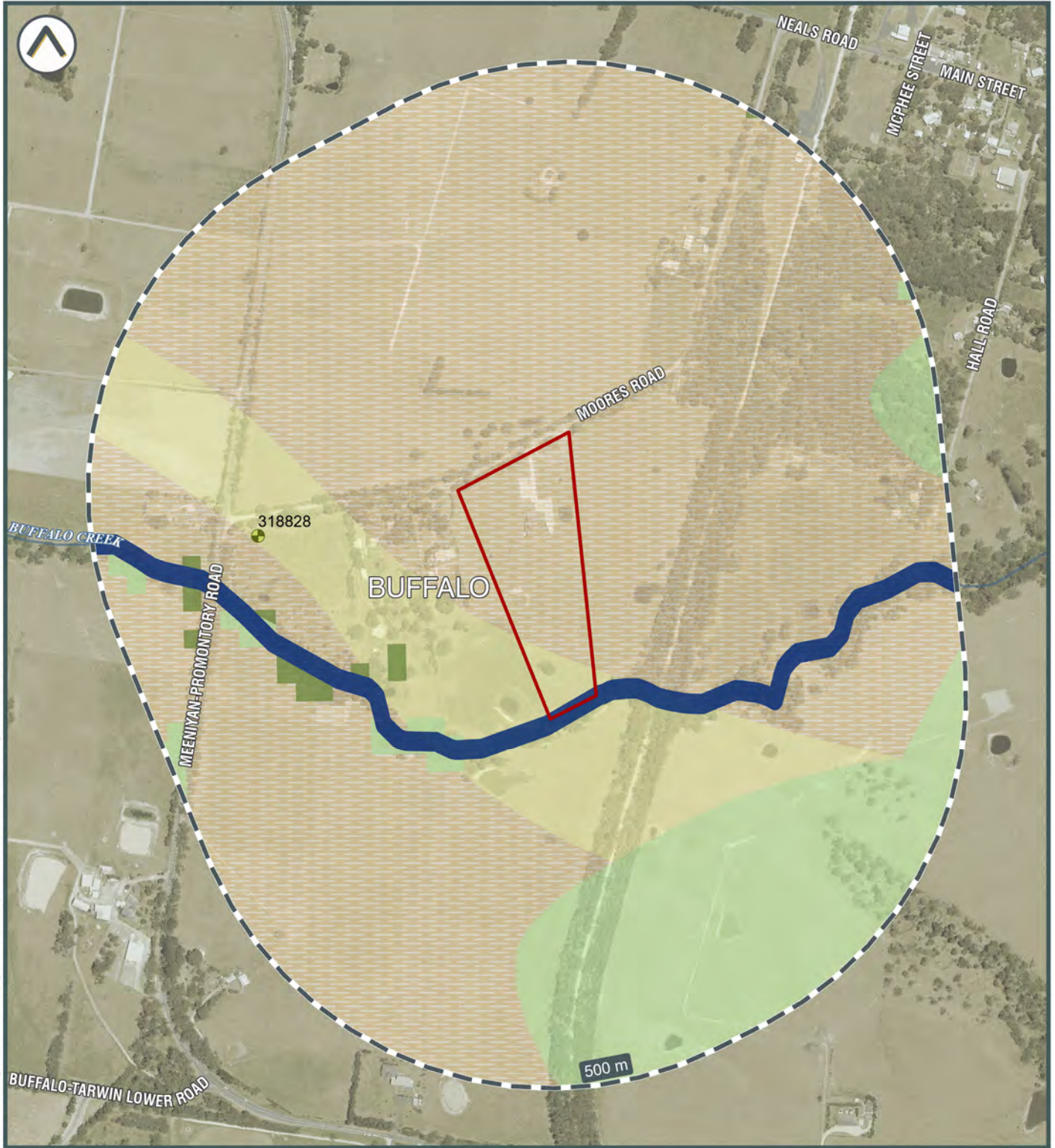


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Hydrogeology and Other Boreholes



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- Subject area
- Other boreholes
- Hydrogeologic Unit**
- Surficial Sediment Aquifer (porous media - unconsolidated)
- Upper Tertiary/Quaternary Aquitard (porous media - unconsolidated)
- Mesozoic Fractured Rock Aquifer
- Ecosystems that rely on the Surface expression of Groundwater**
- High potential for GW interaction
- Ecosystems that rely on Subsurface presence of Groundwater**
- Moderate potential for GW interaction
- Low potential for GW interaction





Contaminated Land Public Register



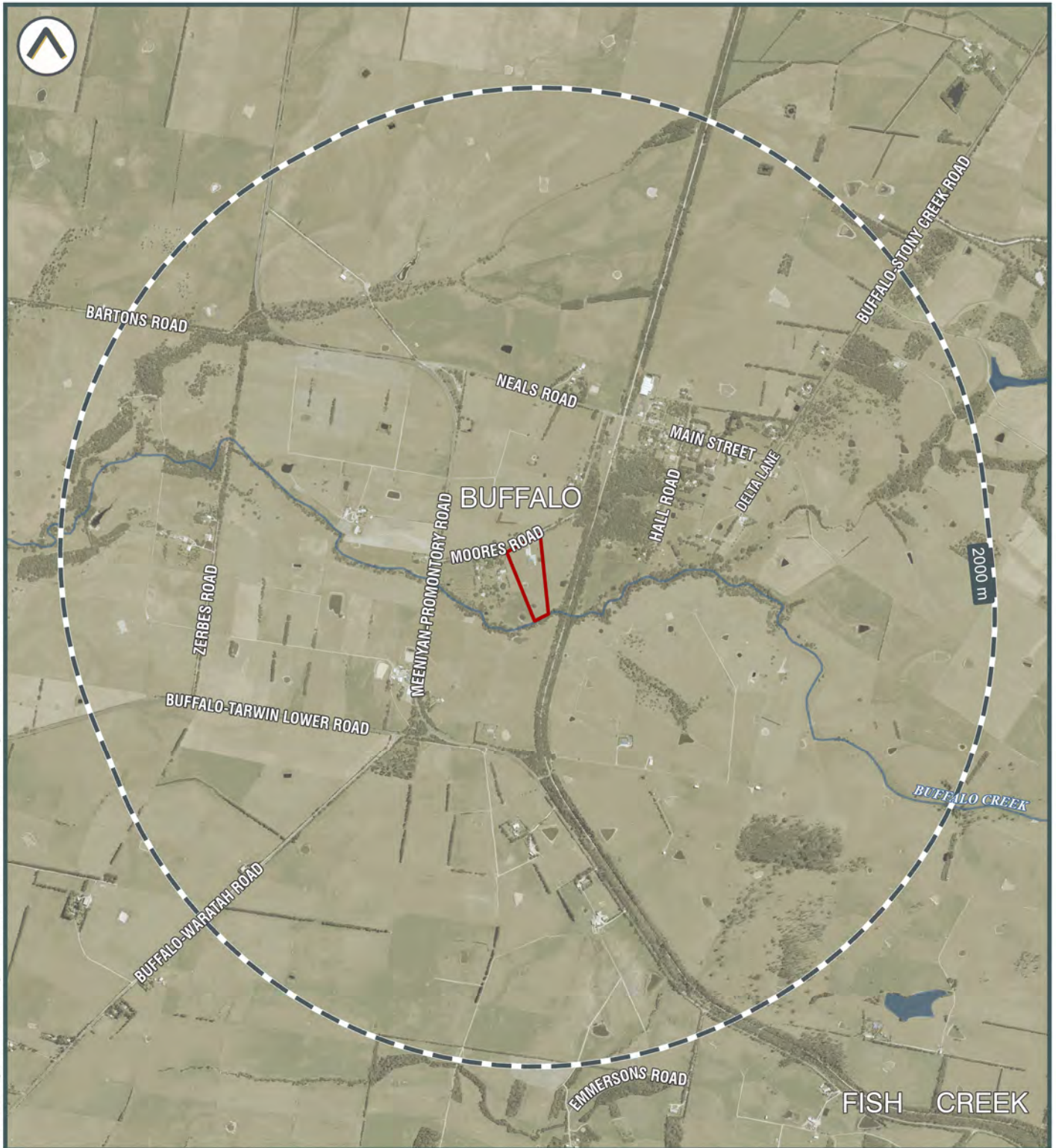
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- Subject area
- Contaminated Land Register (EPA)
- Priority Sites Register Audit Report





Sites Regulated by other Jurisdictional Body



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- |                                 |   |                               |
|---------------------------------|---|-------------------------------|
| Subject area                    | PFAS sites  | Sea Dumping of Depth Charges  |
| NPI Facilities                  | Sea Dumping of Depth Charges (Chemical munitions sea dumping) | Other Sea Dumping Sites       |
| Former Gasworks Sites           | Other   | Defence Area / Military Sites |
| Unexploded Ordnance (UXO) Areas | Defence Controlled Area                                       |                               |
| Substantial Potential           |   |                               |
| Slight potential                |   |                               |

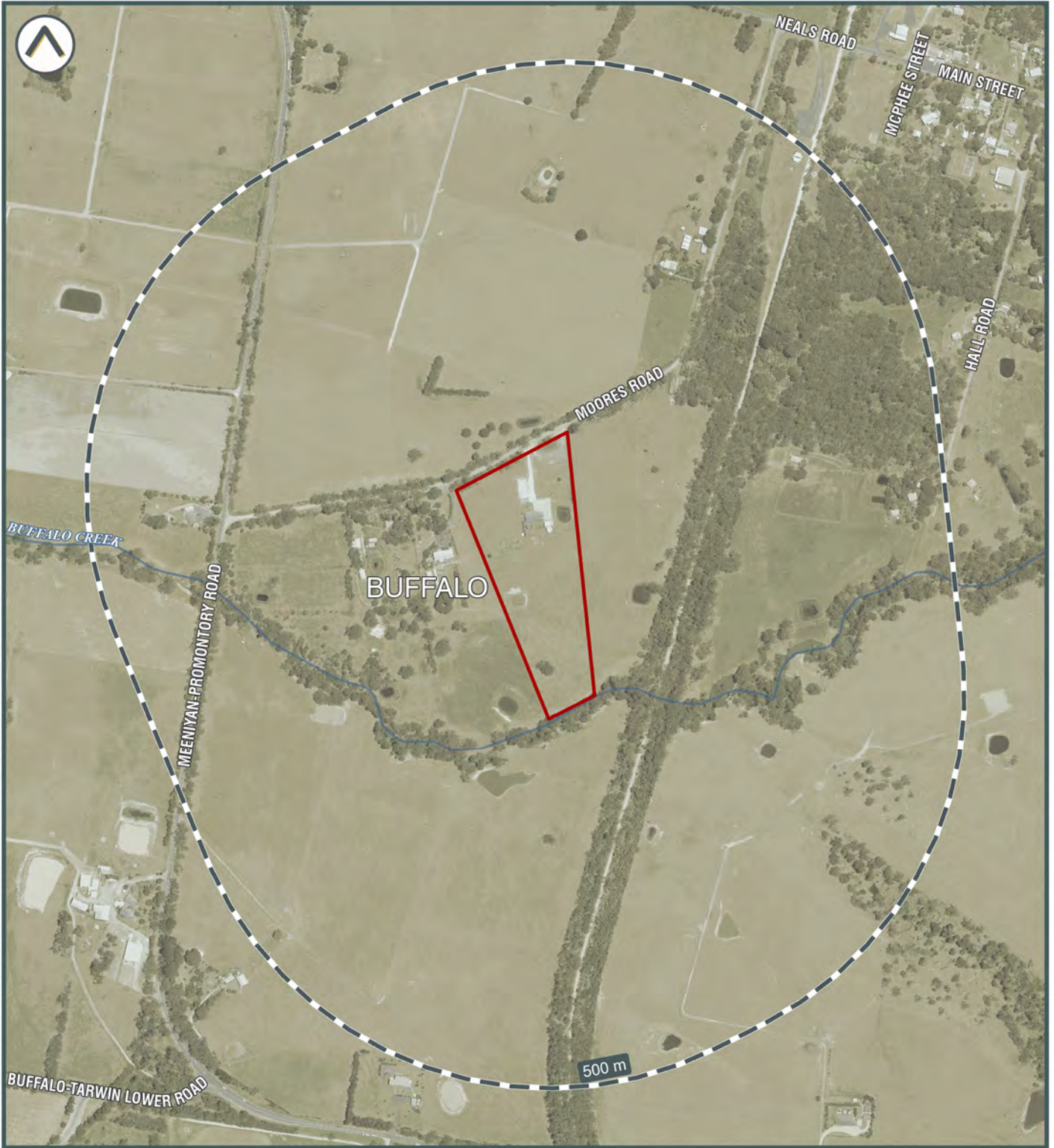


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Licensing Under the POEO Act



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Subject area



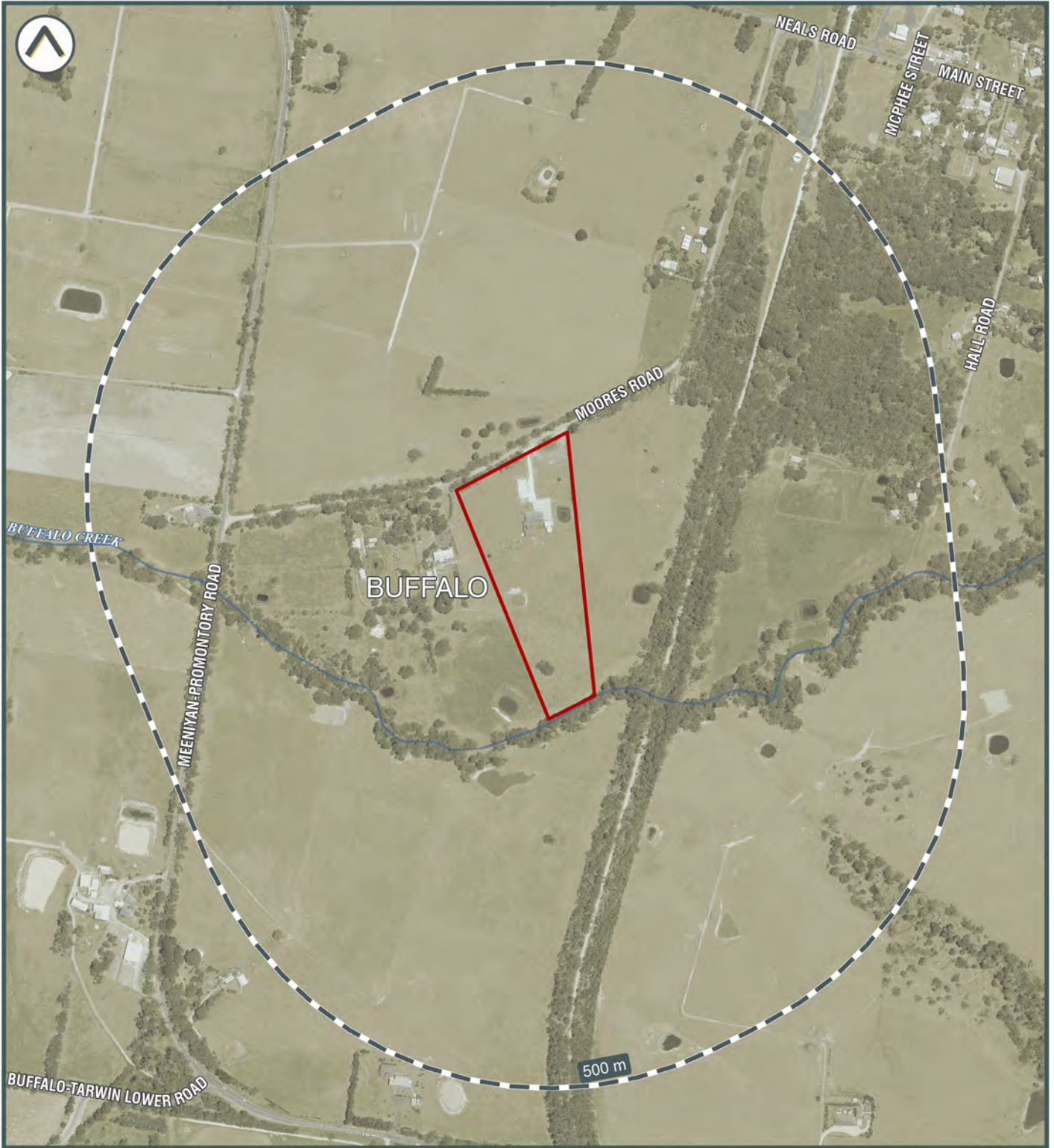
Land Insight do not warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.







Potentially Contaminating Activities (PCAs)



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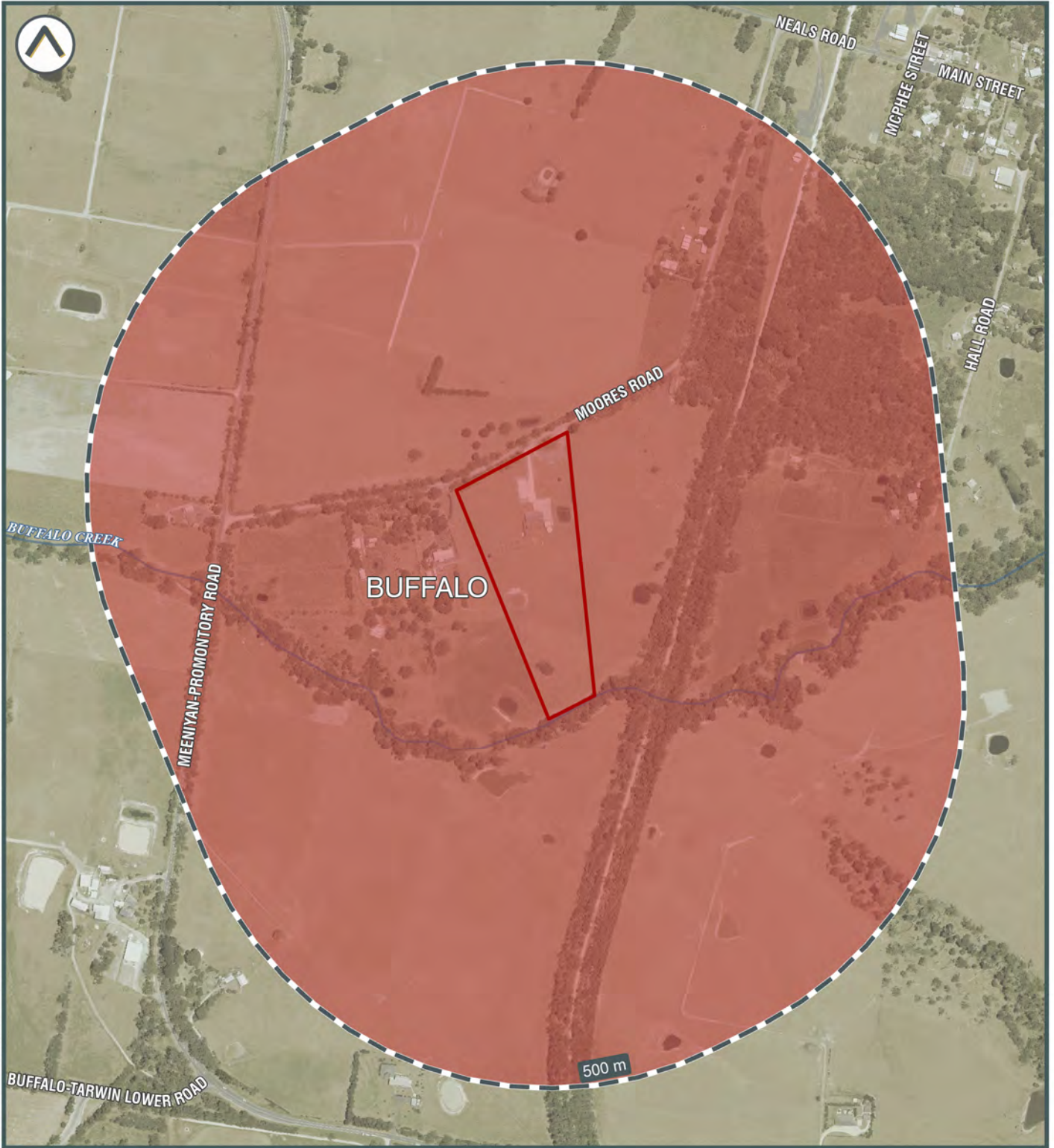
- Subject area
- Liquid Fuel Depots
- Operational Petrol Stations
- Waste Management Facilities
- Former Petrol Stations

Data is current as when this report was created. However due to the turnover of business locations, some addresses may be former.





Fire and Flood Hazards



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Subject area Bush Fire Prone Land



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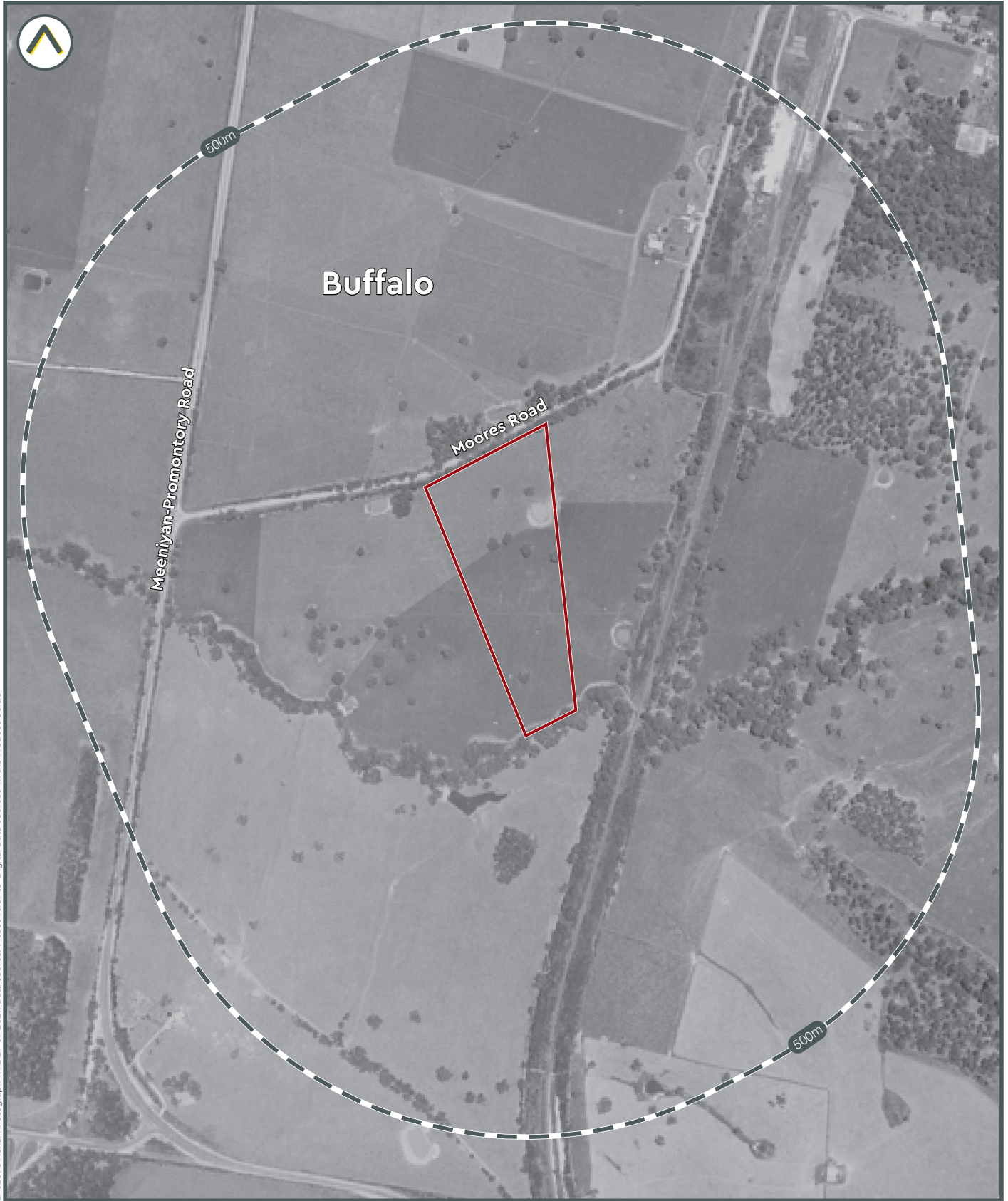


An aerial photograph of a vibrant turquoise river winding through a rugged, rocky landscape. The river is flanked by large, grey boulders and patches of reddish-brown earth. The surrounding terrain is covered in dense, green and yellowish vegetation, with some trees showing signs of autumn. The overall scene is a mix of natural beauty and geological complexity.

# Appendix B

HISTORIC IMAGERY

Historic Aerial Photograph - 1972



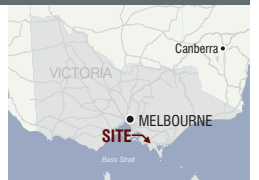
LI-02096 Aerial Photograph 1972-29-09-2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

 Subject area

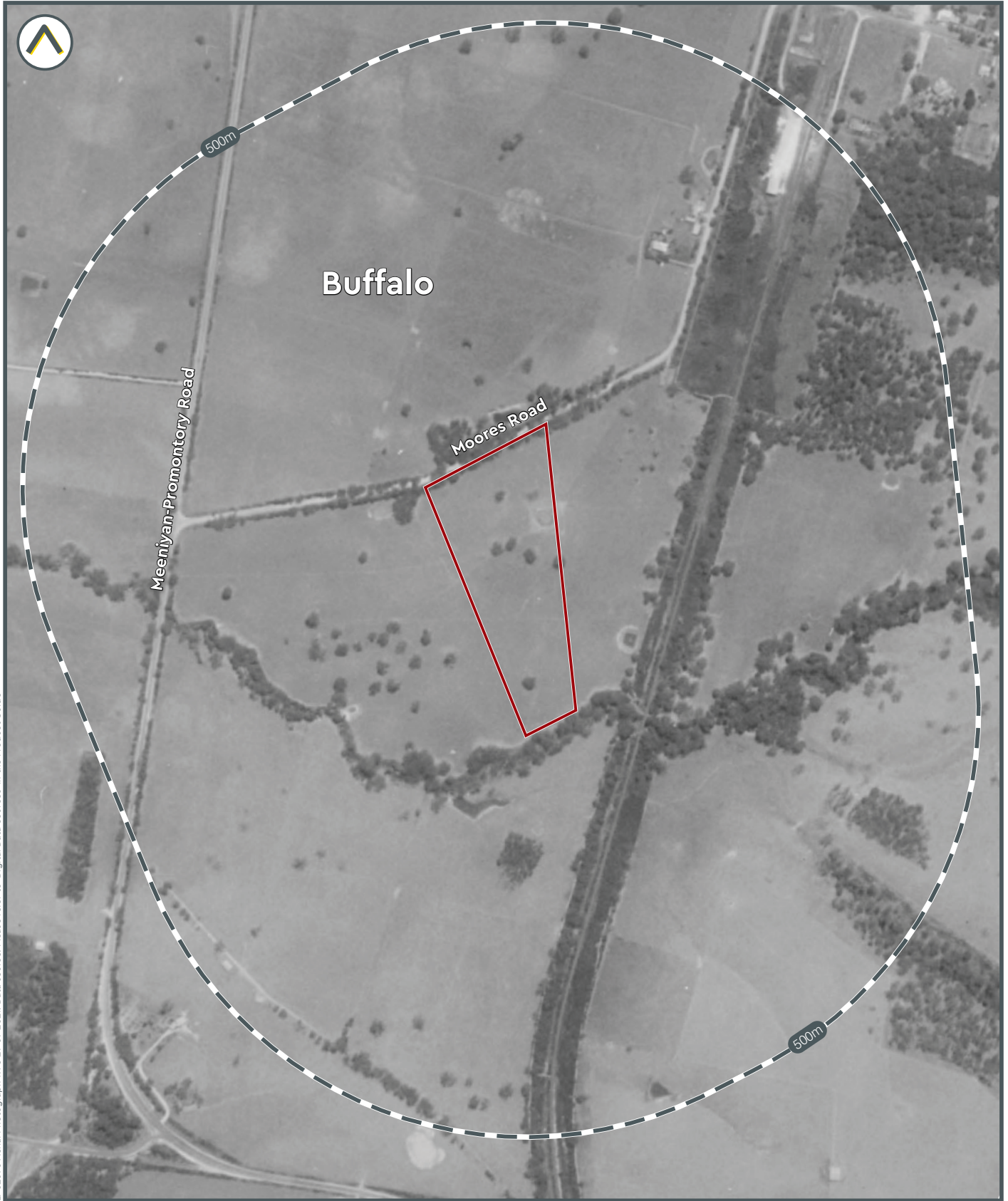
0 400m



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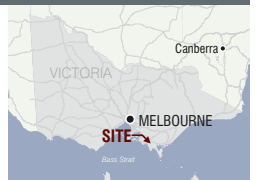
Historic Aerial Photograph - 1975



LI-02096 Aerial Photograph 1975 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 400m



Historic Aerial Photograph - 1981



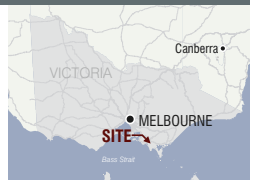
LI-02096 Aerial Photograph 1981.29. 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

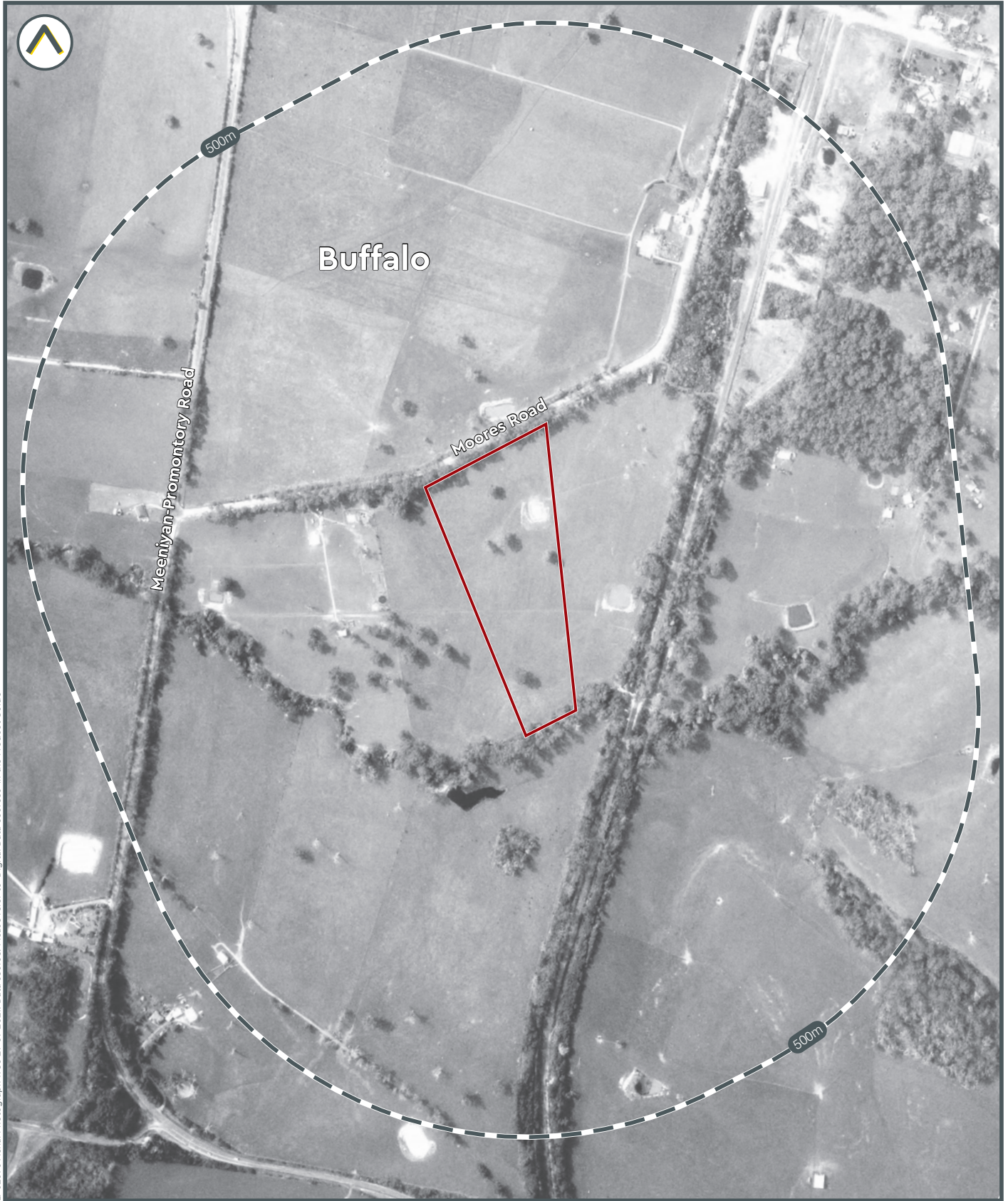
0 400m




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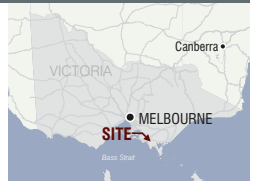
Historic Aerial Photograph - 1985



LI-02096 Aerial Photograph 1985 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

 Subject area

 0 400m






Historic Aerial Photograph - 1991



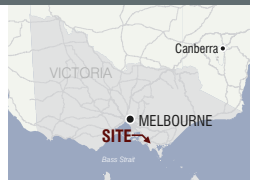
LI-02096 Aerial Photograph 1991.29.09.2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

 Subject area

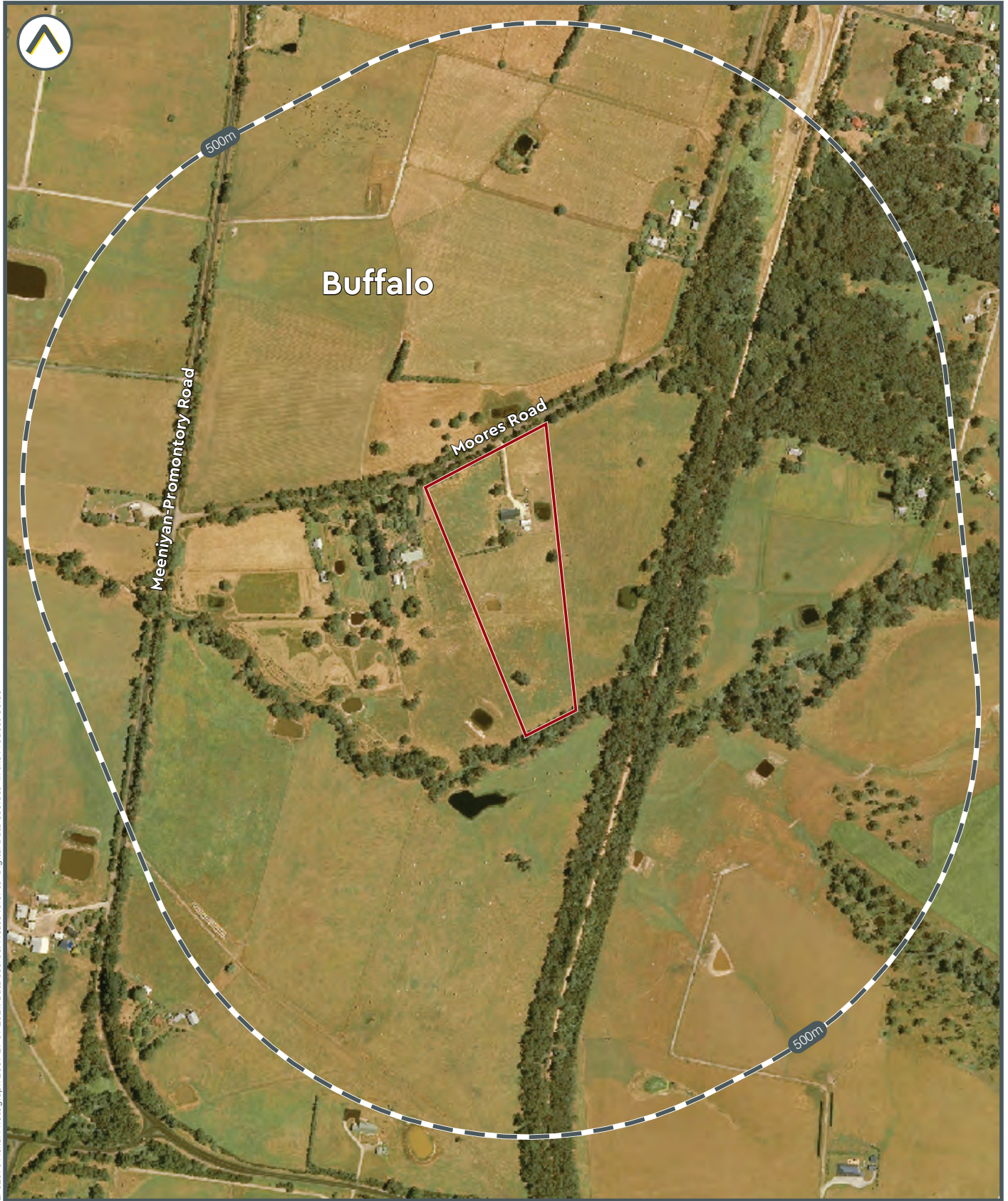
 0 400m




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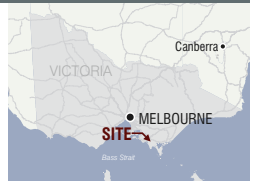
Historic Aerial Photograph - 2009



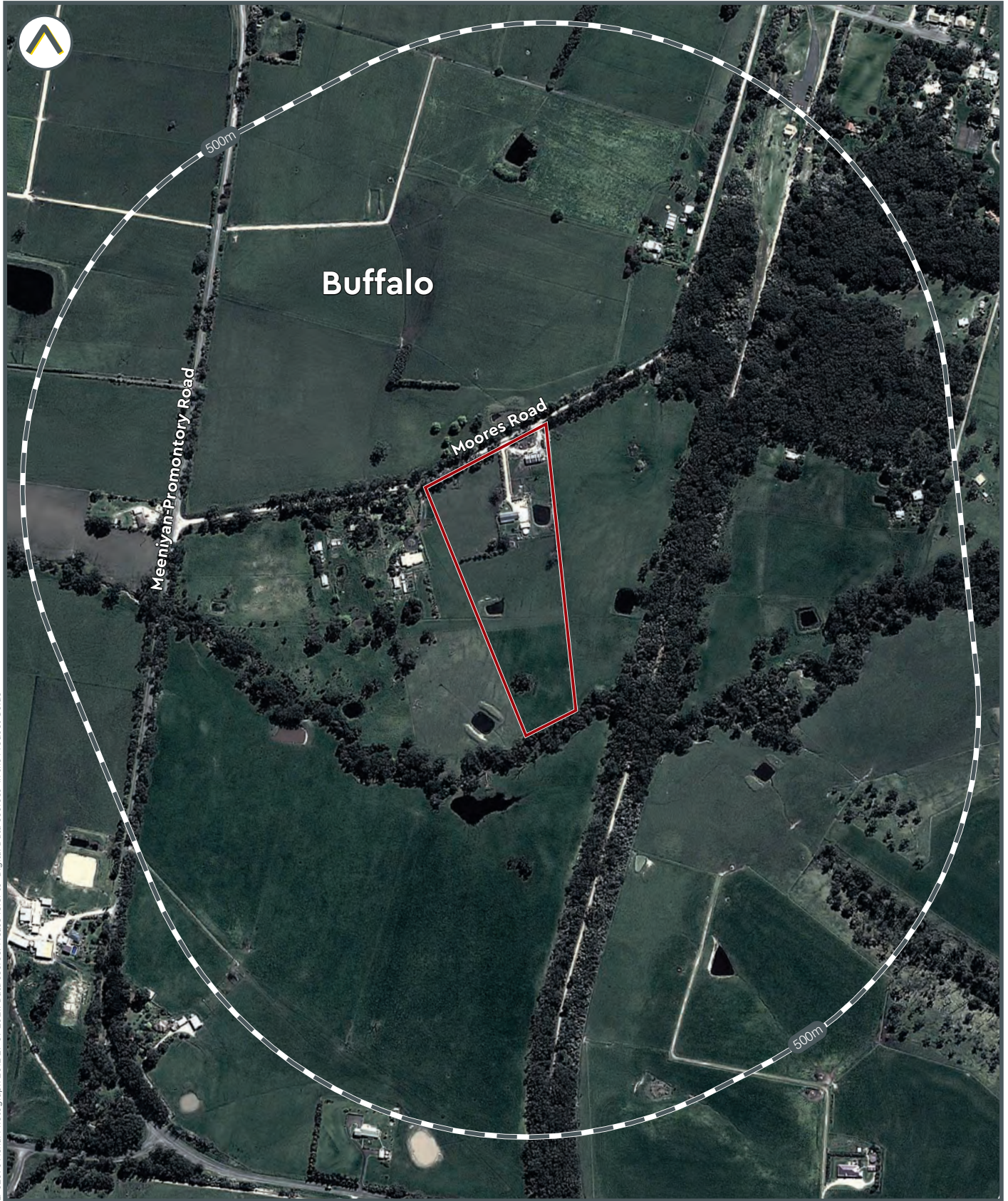
LI-02096 Aerial Photograph 2009 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

 Subject area

 0 400m



Historic Aerial Photograph - 2012



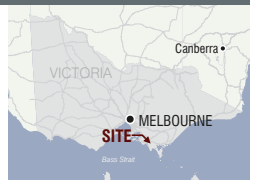
LI-02096 Aerial Photograph 2012 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

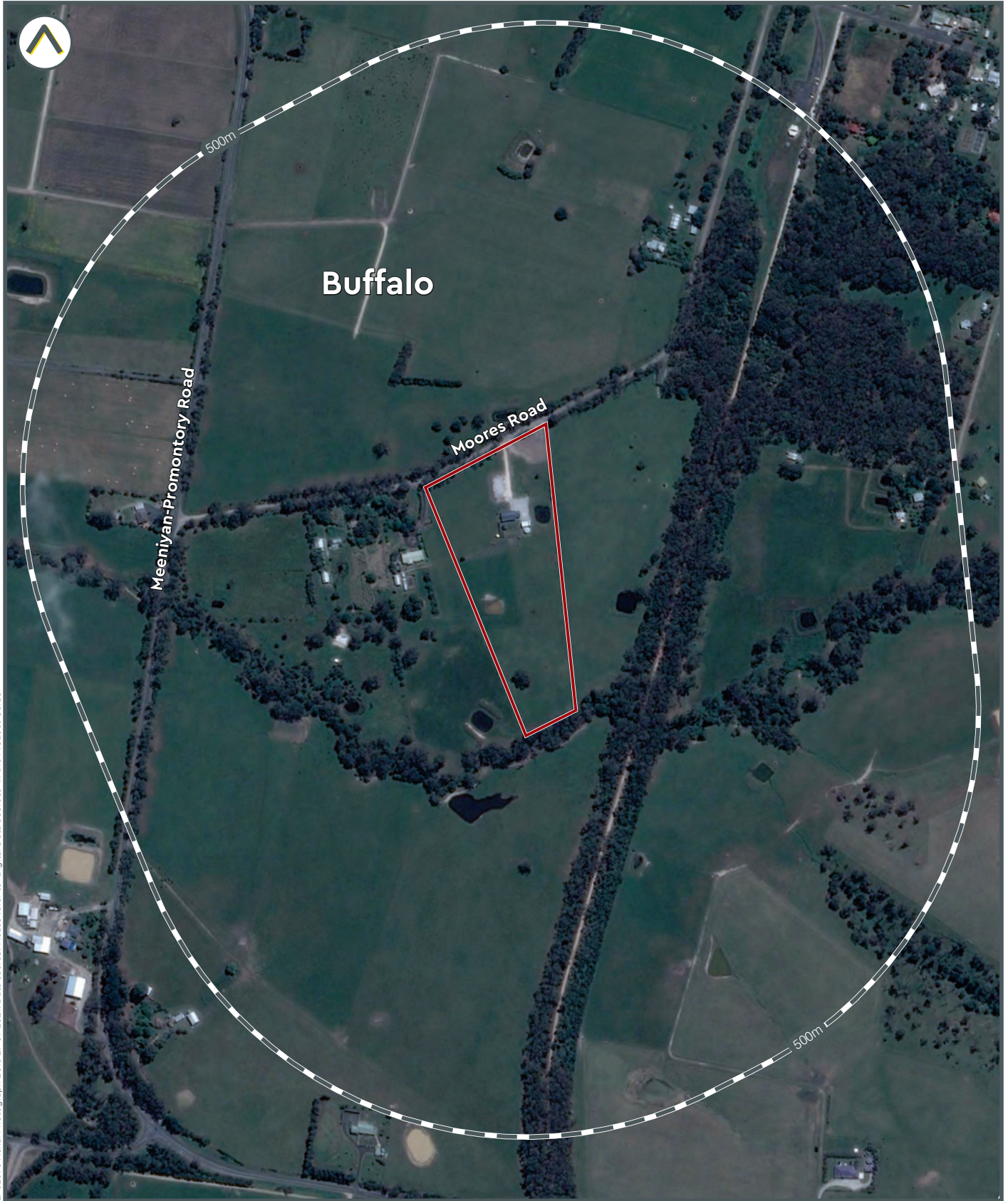
0 400m



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Historic Aerial Photograph - 2015



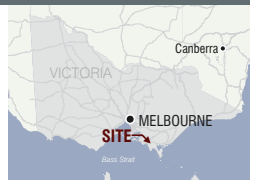
LI-02096 Aerial Photograph, 2015 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

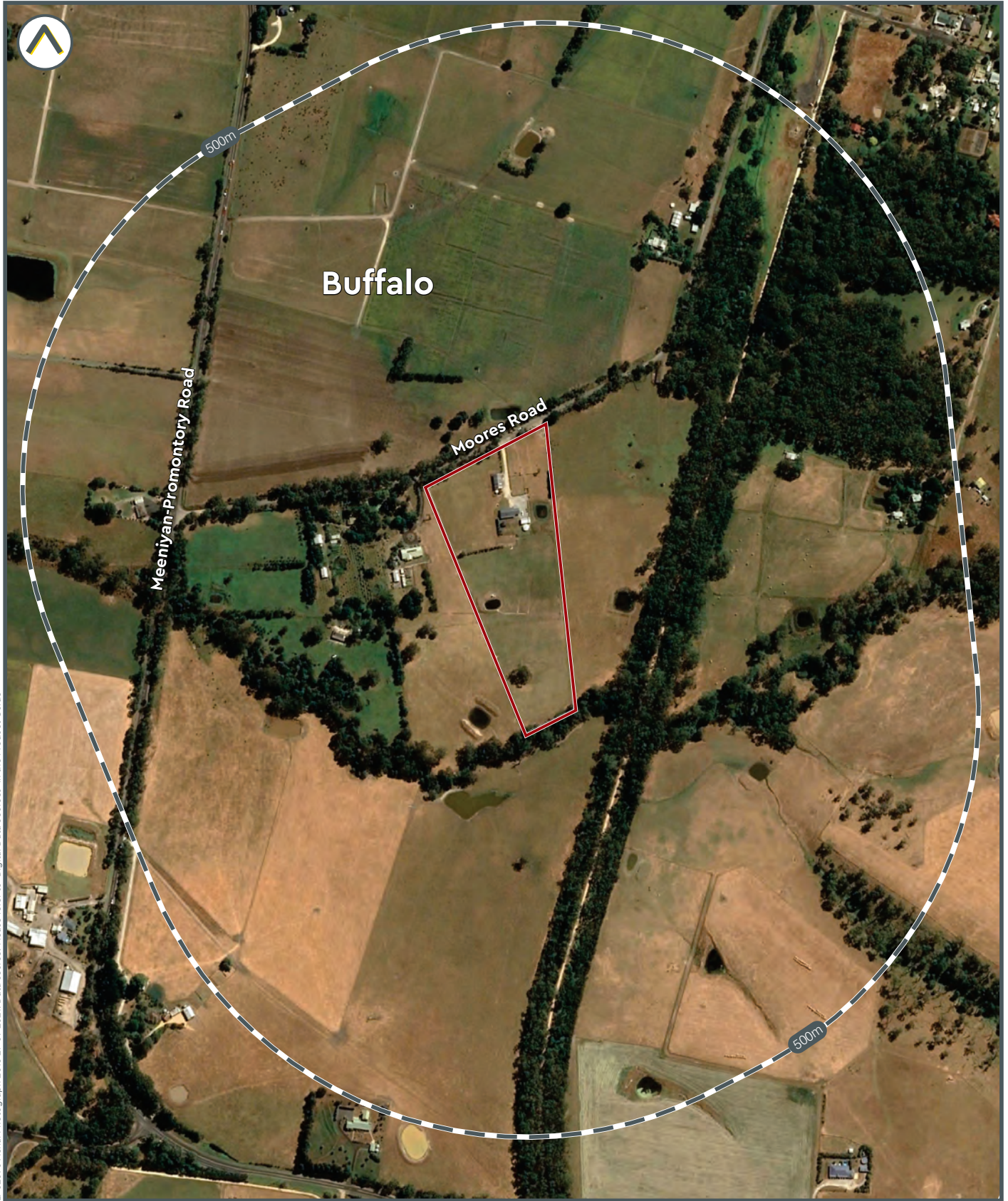
0 400m



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Historic Aerial Photograph - 2019



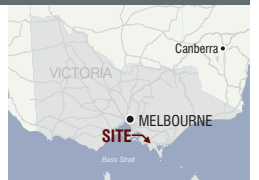
LI-02096 Aerial Photograph 2019 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

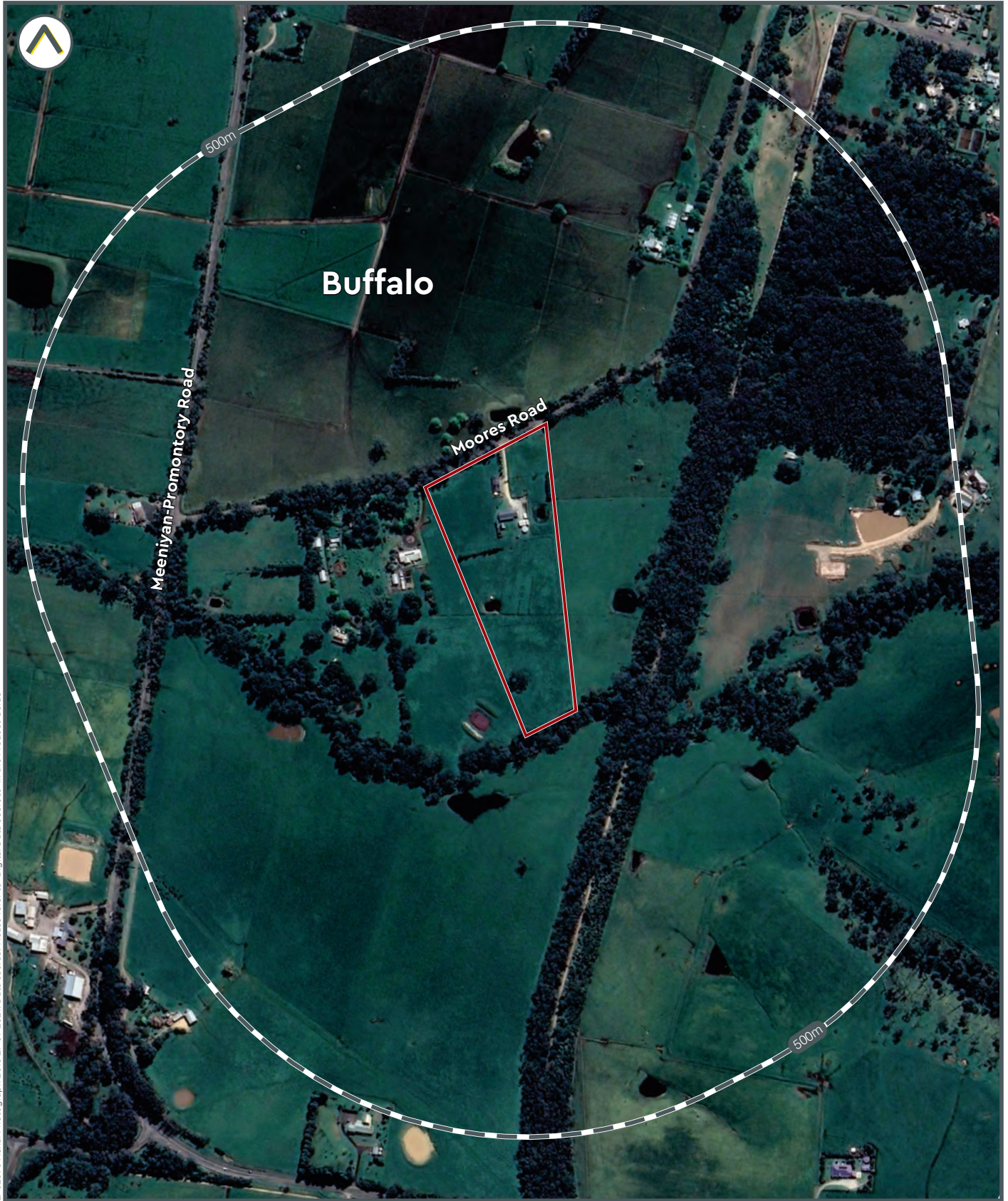
0 400m




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Historic Aerial Photograph - 2020



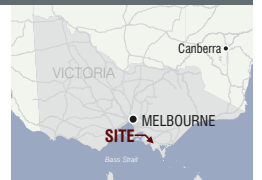
LI-02096 Aerial Photograph 2015-29-09-2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

 Subject area

 0 400m



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# Enviro-Screen

Buffalo Township  
Buffalo, VIC

27 September 2021







# Understanding your report

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Your Report has been produced by Land Insight and Resources (Land Insight).

Your Report is based on information available from public databases and sources at the date of reporting. The information gathered relates to land that is within a 200 to 2000m radius (buffer zone) from the boundaries of the Property. A smaller or larger radius may be applied for certain records (as listed under records and as shown in report maps).

While every effort is made to ensure the details in your Report are correct, Land Insight cannot guarantee the accuracy or completeness of the information or data provided.

**The report provided by Land Insight includes** data listed on page 4 (table of contents). All sources of data and definitions are provided in the Product Guide (Attached). For a full list of references, metadata, publications or additional information not provided in this report, please contact [info@liresources.com.au](mailto:info@liresources.com.au)

**The report does not include** title searches; dangerous good searches or; property certificates (unless requested); or information derived from a physical inspection, such as hazardous building materials, areas of infilling or dumping/spilling of potentially contaminated materials. It is important to note that these documents and an inspection can contain information relevant to contamination that may not be identified by this Report.

Due to the ongoing nature of database development and frequency of updates provided by various state government regulators the data displayed within this report is only current from date of production.

**This Report, and your use of it, is regulated by Land Insight's Terms and Conditions (See Land Insight's Product Guide).**

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**ATTACHMENTS**

**Attachment A - Report Maps**

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**Land Insight Product Guide and Terms and Conditions**

# SUMMARY

 <b>Section 1</b>	<b>PROPERTY SETTING</b>	<b>Identified</b>
Sensitive Receptors Planning Control Heritage Soil and Land Information Geology and Topography		
 <b>Section 2</b>	<b>HYDROGEOLOGY</b>	<b>Identified</b>
Aquifer Groundwater Bores and Other Borehole investigations Groundwater Dependent Ecosystems (GDE) Hydrogeology Units Wetlands		
 <b>Section 3</b>	<b>ENVIRONMENTAL REGISTERS LICENCES AND INCIDENTS</b>	<b>Not Identified</b>
Contaminated Land Public Register Sites Regulate by Other Jurisdictional Body (Former Gaswork sites / PFAS sites) Licensing and Regulated Sites National Pollutant Inventory (NPI)		
 <b>Section 4</b>	<b>POTENTIALLY CONTAMINATED AREAS</b>	<b>Identified</b>
National Liquid Fuel Facilities National Waste Management Facilities		
 <b>Section 5</b>	<b>NATURAL HAZARDS</b>	<b>Identified</b>
Erosion risk Bushfire prone land Fire history Flood hazards		



# Section 1 Property Setting



## 1.1 SENSITIVE RECEPTORS

Map 1.1 (200m Buffer)

Sensitive receptor	Category	Distance (m)	Direction
Not identified	-	-	-

## 1.2 PLANNING CONTROLS

Map 1.2 (onsite)

### Zoning

Code	Zoning	Details
TZ	TOWNSHIP ZONE	-
PPRZ	PUBLIC PARK AND RECREATION ZONE	-
FZ	FARMING ZONE	-

### Planning Overlay

Type	Category	Details
BMO	BMO	BUSHFIRE MANAGEMENT OVERLAY
ESO	ESO5	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 5
RO	RO16	RESTRUCTURE OVERLAY - SCHEDULE 16

### Other Planning Information

Type	Category	Details
Not identified	-	-

### 1.3 HERITAGE

Map 1.3 (200m Buffer)

#### State and Local Heritage

Site ID	Site Name	Type	Details	Distance (m)	Direction
5802	-	Areas of Cultural Heritage Sensitivity (CHS)	-	0.0	onsite

#### Australian Heritage Database

Site ID	Site Name	Type	Details	Distance (m)	Direction
Not identified	-	-	-	-	-

Commonwealth Heritage List, National Heritage List and World Heritage Area.

### 1.4 SOIL AND LAND USE INFORMATION

Map 1.4a/1.4b (onsite)

#### Soil Landscape

Soil Landscape	PfcC7-2	fc	Soil Group	'Yellow duplex soils, Pale sands'
Description	Plain above flood level (relative relief <9m)			
Soil Landscape	HsM7-1	s	Soil Group	'Brown earths, Yellow duplex soils'
Description	Dissected Fault Block - South Gippsland Ranges			

#### Salinity

Salt Susceptibility	Not identified	-
---------------------	----------------	---

#### Radon

Radon Level	Bq/m <sup>3</sup>	7
-------------	-------------------	---

Typical radon levels in Australia are low and the values shown are the average values for each census district. For specific location, factors such as the local geology and house type could lead to different values. (ARPANSA).

#### Acid Sulfate Soil

Coastal Acid Sulfate Soil Hazard (CASS) (Table 1.4.1)	On the Property?	Within Buffer?
Class	Not identified	Not identified

#### National Acid Sulfate Soils Atlas

Atlas of Australian ASS (Table 1.4.2)	Bn(p4)	ASS in inland lakes, waterways, wetlands and riparian zones	Probability of Occurrence	Low Probability of occurrence
--	--------	---	---------------------------	-------------------------------

Table 1.4.1. Classification for Coastal Acid Sulfate Soils (CASS)	
Class of Land as shown on ASS Planning Maps	
<b>Prospective Land</b>	Land that has the potential to contain Coastal Acid Sulfate Soils as indicated by geomorphology.
<b>Made Land</b>	Land that has been modified by human agency. Here, the geomorphic features that indicate the potential to contain Coastal Acid Sulfate Soil, no longer exist. Assessment of the potential depends on information such as geology maps or soil maps, that pre-dates modification.

Data represents Victorian coastal lands which have the potential to contain acid sulfate soil (CASS), i.e. it is prospective for CASS. The data is used for triggering an investigation of a site where proposed activities risk disturbing CASS. Department of Environment and Primary Industries.

Table 1.4.2. Atlas of Australian Acid Sulfate Soils <sup>1</sup> (ASRIS) (CSIRO/NatCASS)	
Probability of Occurrence of ASS <sup>1</sup>	
<b>A</b>	<b>High Probability of occurrence</b> - (>70% chance of occurrence in mapping unit)
<b>B</b>	<b>Low Probability of occurrence</b> - (6-70% chance of occurrence in mapping unit)
<b>C</b>	<b>Extremely low probability of occurrence</b> - (1-5% chance of occurrence in mapping unit)
<b>D</b>	<b>No probability of occurrence</b> - (<1% chance of occurrence in mapping unit)
<b>x</b>	<b>Disturbed ASS<sup>1</sup> terrain</b> - (ASS <sup>1</sup> material present below urban development).
<b>u</b>	<b>Unclassified</b> - (Insufficient information to classify map unit)
Zones	
<b>a</b>	Potential acid sulfate soil material and/or Monosulfidic Black Ooze (MBO).
<b>b, c</b>	Potential acid sulfate soil generally within upper 1 m.
<b>c, d, e</b>	ASS <sup>1</sup> generally within upper 1 m.
<b>f</b>	ASS <sup>1</sup> generally below 1 m from the surface
<b>g</b>	ASS <sup>1</sup> , generally below 3 m from the surface.
<b>h</b>	ASS <sup>1</sup> generally within 1 m of the surface.
<b>i, j</b>	ASS <sup>1</sup> generally below 1 m of the surface.
<b>k</b>	ASS <sup>1</sup> material and/or Monosulfidic Black Ooze (MBO).
<b>l, m, n, o, p, q</b>	ASS <sup>1</sup> generally within upper 1 m in wet / riparian areas.
Subscripts to codes	
<b>(a)</b>	Actual acid sulfate soil (AASS) = sulfuric material.
<b>(p)</b>	Potential acid sulfate soil (PASS) = sulfidic material.
<b>(q)</b>	Monosulfidic Black Ooze (MBO) is organic ooze enriched by iron monosulfides.
Confidence levels	
<b>(1)</b>	All necessary analytical and morphological data are available
<b>(2)</b>	Analytical data are incomplete but are sufficient to classify the soil with a reasonable degree of confidence
<b>(3)</b>	No necessary analytical data are available, but confidence is fair, based on a knowledge of similar soils in similar environments
<b>(4)</b>	No necessary analytical data are available, and classifier has little knowledge or experience with ASS, hence classification is provisional

<sup>1</sup>Acid Sulfate Soils (ASS) are all those soils in which sulfuric acid may be produced, is being produced, or has been produced in amounts that have a lasting effect on main soil characteristics (Pons 1973). Acid sulfate soil (ASS) may include PASS or AASS + PASS. Potential acid sulfate soil (PASS) = sulfidic material. Actual acid sulfate soil (AASS) = sulfuric material.



## 1.5 GEOLOGY AND TOPOGRAPHY

Map 1.5 (onsite)

### Geology

Map Sheet	Symbol	Name	Geologic History	Lithology	Description
1:50,000 Geological Units	Ksw	Wonthaggi Formation (Ksw): generic	Early Cretaceous to Early Cretaceous (channelled stream flow - fluvial [environment]; over-bank stream flow - fluvial [environment])	sandstone (major [proportion]); siltstone (minor [proportion]); conglomerate (minor [proportion]); coal (minor [proportion])	Lithic volcanoclastic sandstone, arkose, siltstone, minor conglomerate and coal; fluvial

### Naturally Occurring Asbestos Potential (NOA)

Category	On the Property?	Within Buffer?
Not identified	-	-

### Topography

Topography	40 – 70 mAHD
------------	--------------



## Section 2 Hydrogeology



### 2.1 HYDROGEOLOGY AND GROUNDWATER BORES

Map 2.1 (2000m Buffer)

	On the Property?	Within Buffer?
<b>Aquifer Type</b>	Fractured or fissured, extensive aquifers of low to moderate productivity	Fractured or fissured, extensive aquifers of low to moderate productivity Porous, extensive aquifers of low to moderate productivity
<b>Designated Water Supply Catchments</b>	Not identified	Not identified
<b>Depth to Watertable (m)</b>	<5 - >50	<5 - >50
<b>Wetlands</b>	Not identified	Periodically Inundated - Seasonal Or Episodic
<b>Groundwater Salinity (mg/L)</b>	3500	1000 - 3500

#### Groundwater Quality Restricted Use Zones

Number	Address	Site history	Restrictions on Use	Distance (m)	Direction
Not identified	-	-	-	-	-

#### Groundwater Bores

Map ID	Groundwater Bore ID	Authorised Purpose	Completion Date	Drilled Depth (m)	Final Depth (m)	SWL (m)	Salinity (mg/L)	Yield (L/s)	Distance (m)	Direction
10	WRK983946	Unknown		25.0	25.0				0.0	onsite
11	WRK991052	Unknown		25.0	25.0				0.0	onsite
12	WRK980460	Unknown		25.0	25.0				0.0	onsite

Map ID	Groundwater Bore ID	Authorised Purpose	Completion Date	Drilled Depth (m)	Final Depth (m)	SWL (m)	Salinity (mg/L)	Yield (L/s)	Distance (m)	Direction
9	77659	Stock and Domestic	22/11/1988	12.0	12.5			0.758	114.5	West
8	318828	Unknown	31/12/1917	144.0	144.2				557.6	South-west
7	77651	Stock and Domestic	6/04/1973	52.0	51.8				698.7	West
6	77645	Stock and Domestic	1/01/1970	0.0	0.0				824.7	West
5	WRK060461	Stock and Domestic	1/12/2010	52.0	51.8				852.7	West
4	77654	Stock and Domestic	3/07/1980	27.0	27.0			0.505	1461.1	West
3	77643	Stock and Domestic	31/12/1970	20.0	20.0				1596.6	West
2	77655	Stock and Domestic	29/06/1980	30.0	30.0			0.505	1876.9	West
1	77661	Stock and Domestic	1/01/1988	17.0	17.0				1890.7	West

### Groundwater Bores Driller Lithology Details

Groundwater Bore ID	From Depth - To Depth (m)	Lithology	Distance (m)	Direction
WRK983946	#N/A		0.0	onsite
WRK991052	#N/A		0.0	onsite
WRK980460	#N/A		0.0	onsite
77659	0m-0.4m Topsoil 0.4m-2m Orange And Grey Clay 2m-3.3m Light Blue And Brown Clay 3.3m-12.5m Sandstone And Clay Layers		114.5	West
318828	#N/A		557.6	South-west
77651	#N/A		698.7	West
77645	#N/A		824.7	West
WRK060461	#N/A		852.7	West
77654	#N/A		1461.1	West
77643	#N/A		1596.6	West
77655	#N/A		1876.9	West
77661	#N/A		1890.7	West

## 2.2 HYDROGEOLOGY AND OTHER BOREHOLES

### Map 2.2 (500m Buffer)

	On the Property?	Within Buffer?
Groundwater Management Areas	Not identified	-
Hydrogeologic Unit	Mesozoic Fractured Rock Aquifer Surficial Sediment Aquifer (porous media - unconsolidated) Upper Tertiary/Quaternary Aquitard (porous media - unconsolidated)	Mesozoic Fractured Rock Aquifer Surficial Sediment Aquifer (porous media - unconsolidated) Upper Tertiary/Quaternary Aquitard (porous media - unconsolidated) Mesozoic Fractured Rock Aquifer Surficial Sediment Aquifer (porous media - unconsolidated) Upper Tertiary/Quaternary Aquitard (porous media - unconsolidated)

## Groundwater Dependent Ecosystems (GDE)

	On the Property?	Within Buffer?
Aquatic	Not identified	High potential for GW interaction
Terrestrial	Low potential for GW interaction Moderate potential for GW interaction	Low potential for GW interaction Moderate potential for GW interaction

*Aquatic - Ecosystems that rely on the Surface expression of groundwater.*

*Terrestrial - Ecosystems that rely on the Subsurface expression of groundwater.*

## Other Known Borehole Investigations (Coal Seam Gas (CSG), Petroleum Wells and Other Boreholes)

Borehole ID	Purpose	Project	Client/ Licence	Date Drilled	Depth (m)	Distance (m)	Direction
Not identified	-	-	-	-	-	-	-



# Section 3 Environmental Registers, Licences and Incidents



## 3.1 CONTAMINATED LAND PUBLIC REGISTER

Map 3.1 (1000m Buffer)

### Environmental Audit Reports

CARMS No.	Address	Audit Category	Distance (m)	Direction
Not identified	-	-	-	-

### Priority Site Register

Notice No.	Address	Issue	Distance (m)	Direction
Not identified	-	-	-	-

**Table 3.1.1 Sections 53X and 53V of the Environment Protection Act 1970**

EPA Types of Environmental Audits	
<b>53X Audits</b>	A 53X ('condition of the environment') audit is most frequently used by the planning system and verifies that potentially contaminated land can be used for a specific use (industrial, commercial or residential). From a 53X audit comes either a certificate or statement of environmental audit.
<b>53V Audits</b>	A 53V ('risk of harm') audit is most commonly used by EPA to understand the risk to the environment posed by an industrial activity or to validate that cleanup of contaminated land or groundwater has occurred. The 53V audit assesses the risk of any possible harm to a site caused by an industrial process or activity, waste substance or noise. This includes audits associated with the construction and operation of landfills.

### 3.2 SITES REGULATED BY OTHER JURISDICTIONAL BODY

Map 3.2 (2000m Buffer)

#### Defence, Military Sites and UXO Areas

Site name	Type*	Description	Distance (m)	Direction
Not identified	-	-	-	-

\*RCIP (Regional Contamination Investigation Program). UXO (Unexploded Ordnance Areas)

#### Former Gasworks Sites

Site name	Description	Distance (m)	Direction
Not identified	-	-	-

#### PFAS Sites

Site name	Description	Distance (m) *	Direction
Not identified	-	-	-

#### National Pollutant Inventory (NPI)

Facility name	Address	Primary ANZSIC Class	Latest report	Distance (m)	Direction
Not identified	-	-	-	-	-

## Licences

Licence No.	Type	Company Name	Address	Details	Distance (m)	Direction
Not identified		-	-	-	-	-

If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.

## Approvals

Doc No.	Type	Company Name	Address	Details	Distance (m)	Direction
Not identified		-	-	-	-	-

If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.

## Notices

Transaction No.	Type	Company Name	Address	Distance (m)	Direction
Not identified		-	-	-	-

If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.

Table 3.3.1 EPA Regulatory Instruments Explanation

Approvals	
<b>Works approval is required for industrial and waste management activities that have the potential for significant environmental impact.</b>	
<b>Works Approval</b>	EPA's works approval process is designed to ensure the best and most cost-effective environmental outcomes on projects are achieved. Without works approvals there is an increased risk of industrial projects causing pollution issues and requiring expensive retrofitting.
<b>30A Approval</b>	Section 30A is an overriding provision of the Environment Protection Act 1970 (the Act) under which EPA can authorise discharges, emissions, storage, treatment, disposal and handling of waste in emergencies and other temporary situations that would otherwise be an offence under the Act. 30A approvals are not issued lightly, as they permit activities that would not normally be allowed.
Notices	
<b>Remedial notices are served to prevent or remedy a range of non-compliances or likely non-compliances. Remedial notices are not punitive measures.</b>	
<b>Clean Up Notice</b>	Clean up notices (CUN) are issued under section 62A of the <i>Environment Protection Act 1970</i> . They aim to prevent further contamination and impact on beneficial uses through removal of waste, undertaking clean-up activities, ongoing management of pollution, altered handling, storage or location of industrial or prescribed industrial waste.
<b>Minor Works Pollution</b>	Minor works pollution abatement notices (MWPANs) are issued under section 31B of the EP Act. They aim to prevent further occurrence of pollution or potential environmental risk through installation of risk controls and changes to onsite processes and practices in urgent situations.
<b>Pollution Abatement Notice</b>	Pollution abatement notices are issued under section 31A of the <i>Environment Protection Act 1970</i> . They aim to prevent further occurrence of pollution or potential environmental risk through installation of risk controls and changes to on-site processes and practices.
<b>Post closure pollution abatement notices (PC PAN)</b>	Post Closure Pollution Abatement Notices (PAN's) are formal legal enforceable Notices issued by EPA on former landfill sites. The environmental risks posed by landfill sites continue for a significant period of time after waste acceptance has ceased.

**Table 3.3.1 EPA Regulatory Instruments Explanation**

<b>Licences</b>	
<b>EPA licence is required for all scheduled premises. It allows the licence-holder to operate and sets conditions that they must meet.</b>	
<b>Licence</b>	Licences contain standard conditions that aim to control the operation of the premises so that there is no adverse effect on the environment. These conditions address areas such as waste acceptance and treatment, air and water discharges, and noise and odour.
<b>Amalgamated Licence</b>	An amalgamated licence is a legal document that contains standard conditions to control the operation of scheduled premises to minimise impacts on the environment. These conditions address areas such as waste acceptance and treatment, air and water discharges, noise and odour.





# Section 4 Potentially Contaminated Areas



## 4.1 POTENTIALLY CONTAMINATING ACTIVITIES

Map 4.1 (500m Buffer)

### Liquid Fuel Facilities

Site name	Category	Location	Status*	Distance (m)	Direction
Not identified	-	-	-	-	-

### Waste Management Facilities & Recycling Centres

Site name	Category	Location	Status*	Distance (m)	Direction
Not identified	-	-	-	-	-

Liquid Fuel Facilities Datasets, representing the spatial locations of liquid fuel depots, refineries, terminals and petrol stations present in the Australian Government National Liquid Fuel Facilities Dataset and Petrol stations identified by Land Insights.

Waste Management Facilities, representing the spatial locations of reprocessing facilities, transfer stations and landfills present in the Australian Government National Waste Management Facilities Dataset and Waste/Recycling facilities identified by Land Insights.

A more comprehensive list of all Potentially Contaminating Activities is available in the Due Diligence Insight report.

**\*Status:**

Data is current as when this report was created. However due to the turnover of business locations, some addresses may be former. Current: business is operating on the day this report was issued.

Former: business that have been closed or discontinued 1 to 2 years prior from the day this report was issued. All former sites older than 2 years will be reported in the 'Historical Potentially Contaminating Activities' section 4.4 in this report.

## 4.2 HISTORICAL POTENTIALLY CONTAMINATING ACTIVITIES

(not mapped)

### 1900 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

### 1905 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

### 1915 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

### 1925 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

### 1935 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

### 1940 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

### 1945 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Solicitors & Barristers	Smith, W. R.	Buffalo	Suburb		onsite

### 1955 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Solicitors & Barristers	Smith, W. R.	Buffalo	Suburb		onsite
Stock & Share Brokers	Neal, A. E.	Buffalo	Suburb		onsite

### 1965 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Guest Houses	Victn Railways Chalet Mt.	Buffalo	Suburb		onsite
Produce Merchants	Mcphees Farm-Bldng Suppls.	Buffalo	Suburb		onsite
Storekeepers	Neals Gnrl Strs Py Ld	Buffalo	Suburb		onsite
Bus Proprietors	Elored, G. W.	Buffalo	Suburb		onsite

### 1970 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

### 1975 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

### 1980 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

### 1990 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

### 2005 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Tree Felling & Tree/ Stump Removal	N & S Tree Felling	21-23 Main St,BUFFALO 3958,VIC,Australia	Address	0.0	onsite
Tree Felling & Tree/ Stump Removal	N & S Tree Felling	21-23 Main St, BUFFALO,VIC,3958	Address	0.0	onsite
Firewood Sales	David Tuckett	Main St, BUFFALO,VIC,3958	Street		onsite
Grain & Produce Retailers	Browns Holt & Hannon	Main St, BUFFALO,VIC,3958	Street		onsite
Fertiliser Supplies	Browns Holt & Hannon (Vic) Pty Ltd, Buffalo	Main St, BUFFALO,VIC,3958	Street		onsite
Paper Folding & Insertion Machines & Service	JBN CARTAGE Pty Ltd	Main St, BUFFALO,VIC,3958	Street		onsite

### 2010 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Earth Moving &/Or Excavating Contractors	Dave's Mini Digger Excavations	16 Main St BUFFALO 3958 VIC	Address	0.0	onsite
Tree Felling & Tree/ Stump Removal	N & S Tree Felling	21 Main St BUFFALO 3958 VIC	Address	0.0	onsite
Fertiliser Supplies	Browns Holt & Hannon (Vic) Pty Ltd	Main St BUFFALO 3958 VIC	Street		onsite

## 2015 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Signwriters	Lucky Signs	10 Main St, Buffalo, VIC, 3958	Address	0.0	onsite
Fertiliser Supplies	SG Fert Logistics Pty Ltd	1 Main St, Buffalo, VIC, 3958	Address	0.0	onsite
Earth Moving &/Or Excavating Contractors	Stefani Dingo Hire	1 Stony Creek Rd, Buffalo, VIC, 3958	Address	0.0	onsite
Tree Felling & Tree/ Stump Removal	Tree Felling	21- 23 Main St, Buffalo, VIC, 3958	Address	0.0	onsite
Fertiliser Supplies	Browns Holt & Hannon (Vic) Pty Ltd	Main St, Buffalo, VIC, 3958	Street		onsite

Land Insight uses a number of address geocoding techniques and characterised them according to the following criteria: completeness (match rates) and positional accuracy. When a historical street address does not contain complete details or a match is not found, a record identified as being in the surrounding area will be included for reference and the accuracy of the data is approximate only. The positional accuracy of the records is listed below:

Historical data positional accuracy and georeferencing results explanation		
Positional accuracy	Georeferenced	Description
Address	Located to the address level	<i>When street address and names fully match.</i>
Street	Located to the street centroid	<i>When street names match but no exact address was found. Location is approximate.</i>
Place	Located to the structure, building or complex	<i>When building, residential complex or structure name match but no exact address was found. Location is approximate.</i>
Suburb	Located to the suburb area	<i>When suburb name match but no exact address was found. Location is approximate.</i>

The data used in this section was extracted from range of historical commercial trade directories and historical business listing information. The business addresses were geocoded using historical information and cannot be relied upon as some of the addresses no longer exist. From 2005, the historical business records in this section are considered more accurate as information was extracted from digital directories with geographic coordinate location information available. For more information on how these records were geocoded and the methodology used by Land Insight, contact us at [info@landinsight.co](mailto:info@landinsight.co).

Historical Industries or business activities deemed to be of negligible or lesser risk are not reported. Please note that any record not identified within this section (due to error or unforeseen omission) does not necessarily mean that the screened area is not potentially contaminated or free of any risks.



## Section 5 Natural Hazards



### 5.1 Natural Hazards

Map 5.1 (500m Buffer)

#### Erosion Risk

Category	On the Property?	Within Buffer?
Not identified	-	-

#### Fire Hazard

Category	On the Property?	Within Buffer?
Bush Fire Prone Area (BLA)	Yes	Yes
Fire History 1986-1987	Yes	Not identified

#### Flood Hazard

Name	On the Property?	Within Buffer?
Not identified	-	-



Tower Three, Level 24  
300 Barangaroo Avenue  
Sydney NSW 2000 Australia  
02 8067 8870  
info@liresources.com.au  
[www.liresources.com.au](http://www.liresources.com.au)



# Appendix A

REPORT MAPS

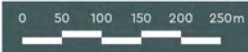


Subject Area and Sensitive Receptors



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Subject area    <all other values>



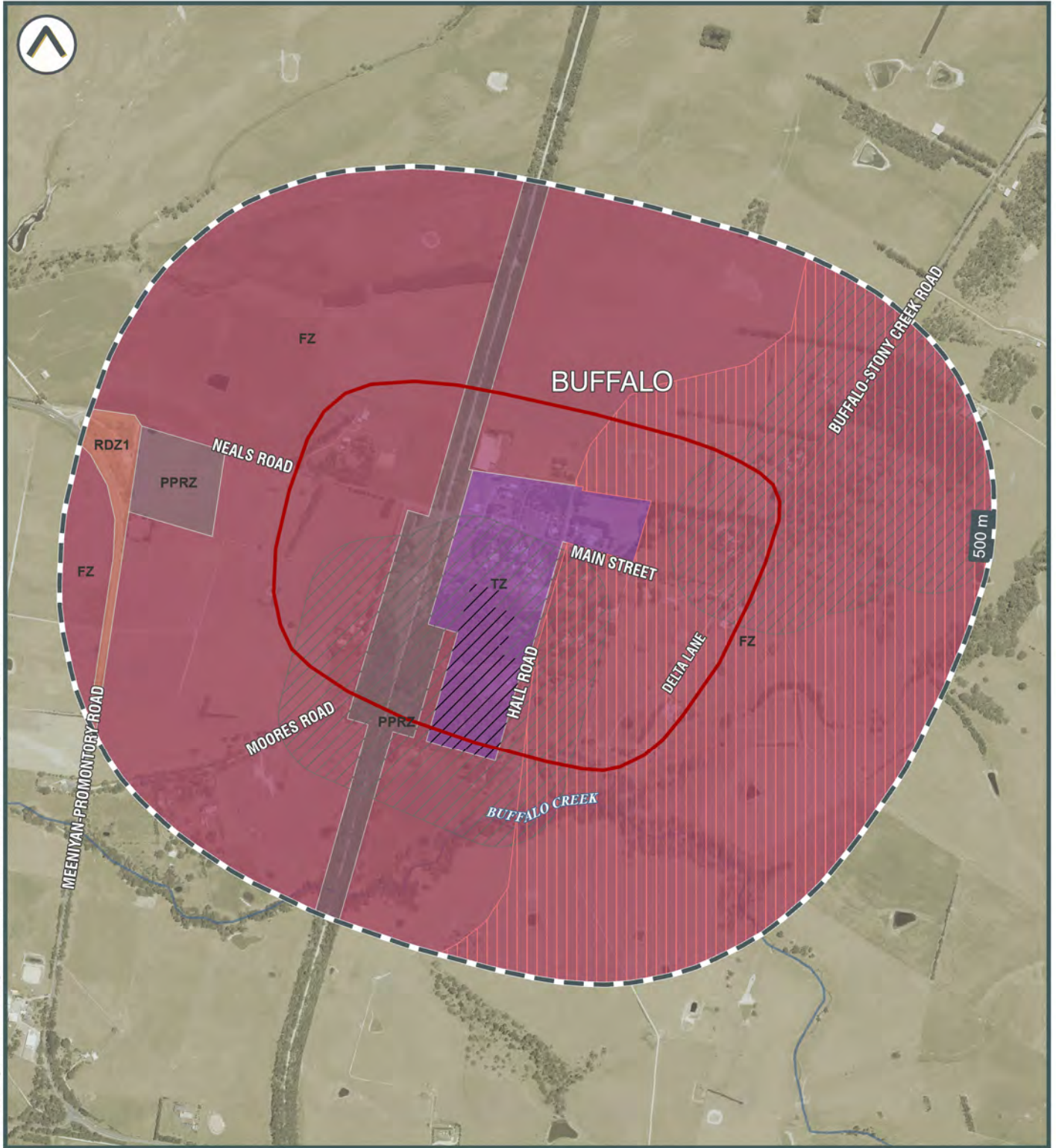
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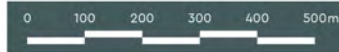


Planning Controls



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Subject area	BMO	FZ   Farming Zone
ESO	PPRZ   Public Park And Recreation Zone	RDZ1   Road Zone - Category 1
RO	TZ   Township Zone	



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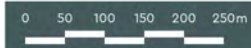


Heritage



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- Subject area
- Victorian Heritage Inventory (VHI)
- Areas of Cultural Heritage Sensitivity (CHS)
- Commonwealth Heritage List (CHL)
- Victorian Heritage Register (VHR)
- National Heritage List (NHL)
- World Heritage Area (WHA)

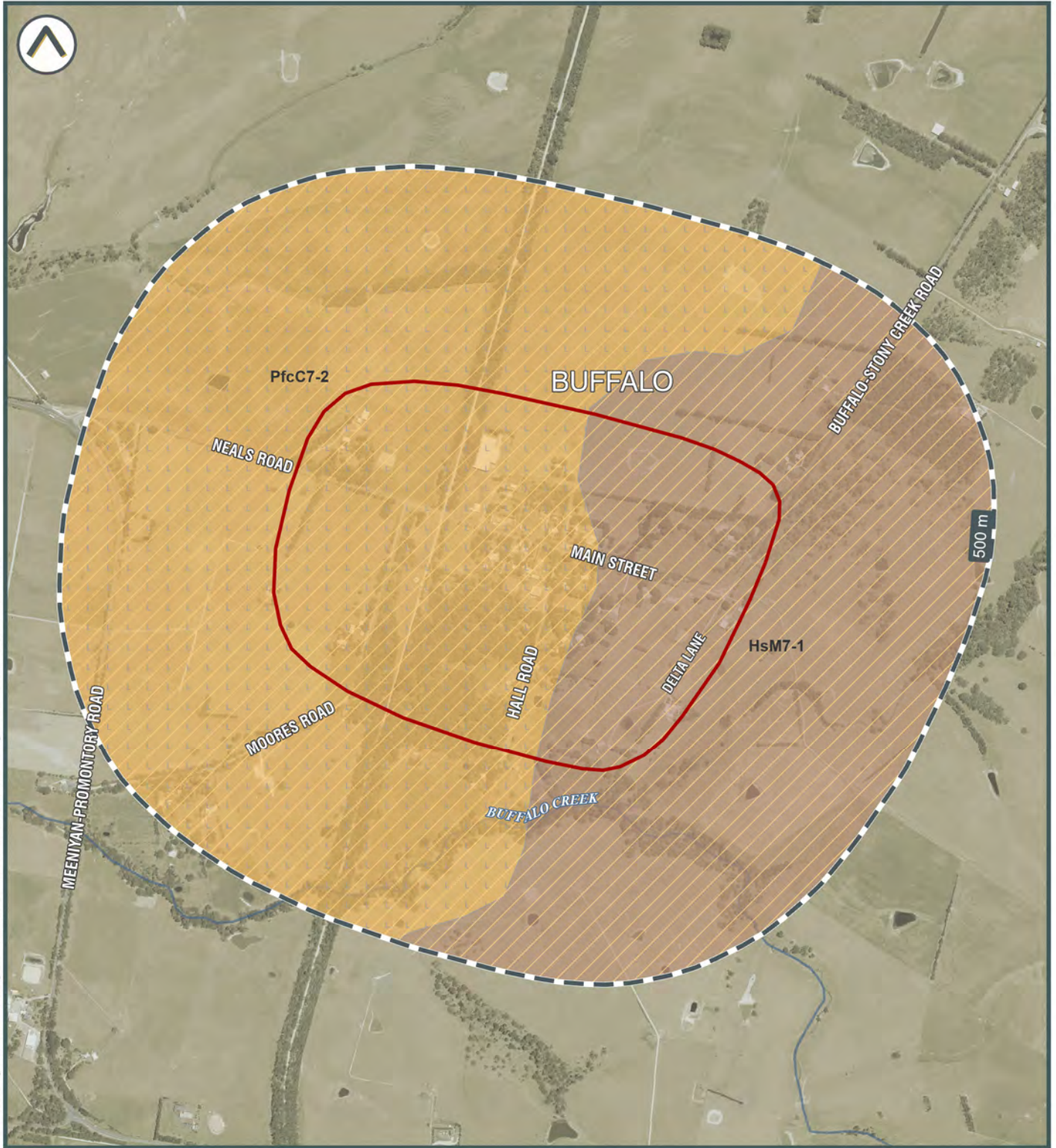


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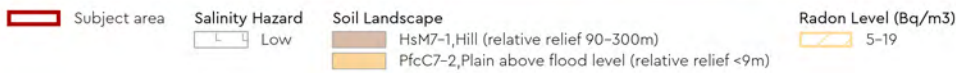




Soil Landscape and Salinity



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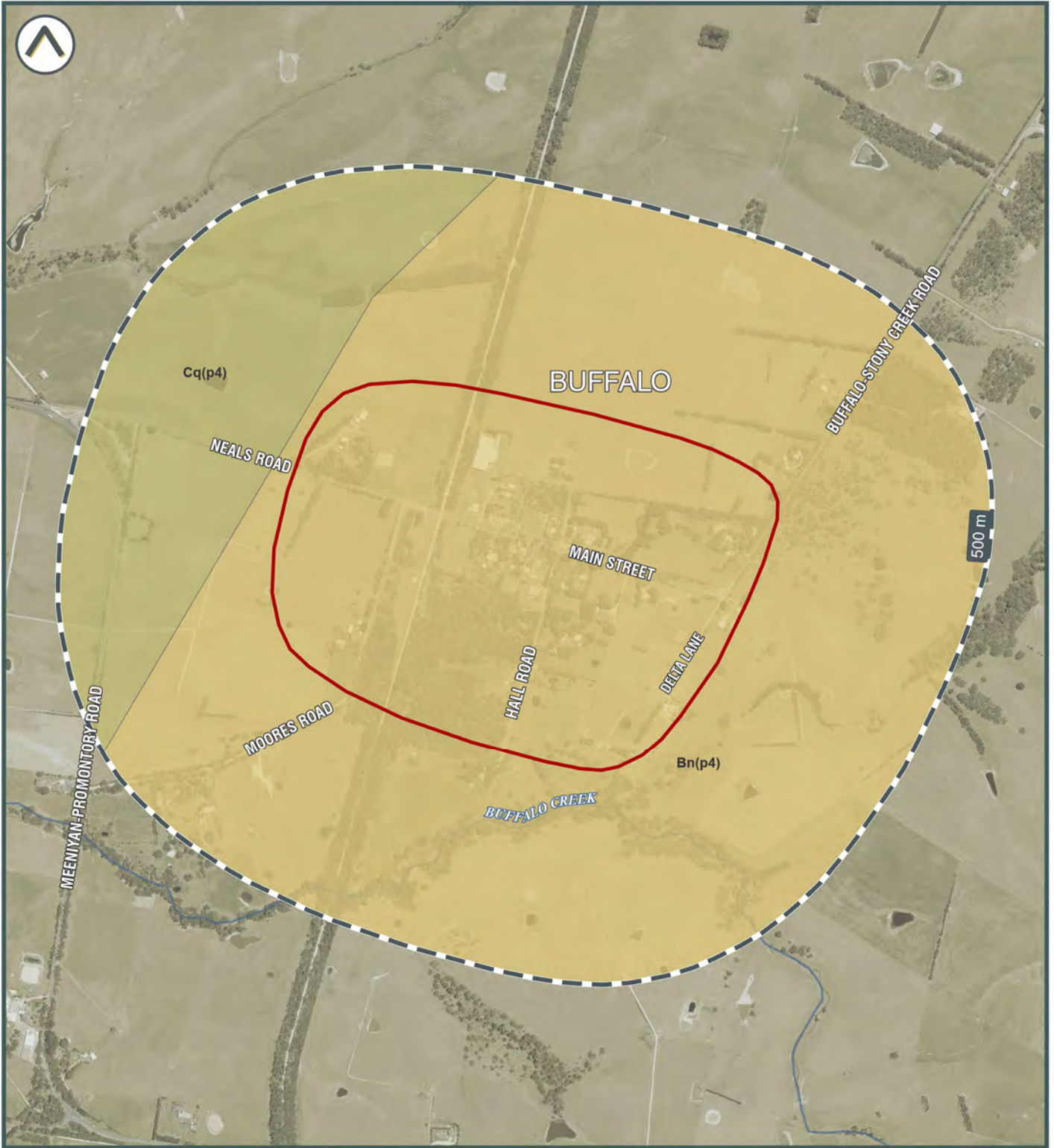


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Acid Sulfate Soils



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- Subject area
- Bn(p4) | ASS in inland lakes, waterways, wetlands and riparian zones
- Cq(p4) | ASS in inland lakes, waterways, wetlands and riparian zones

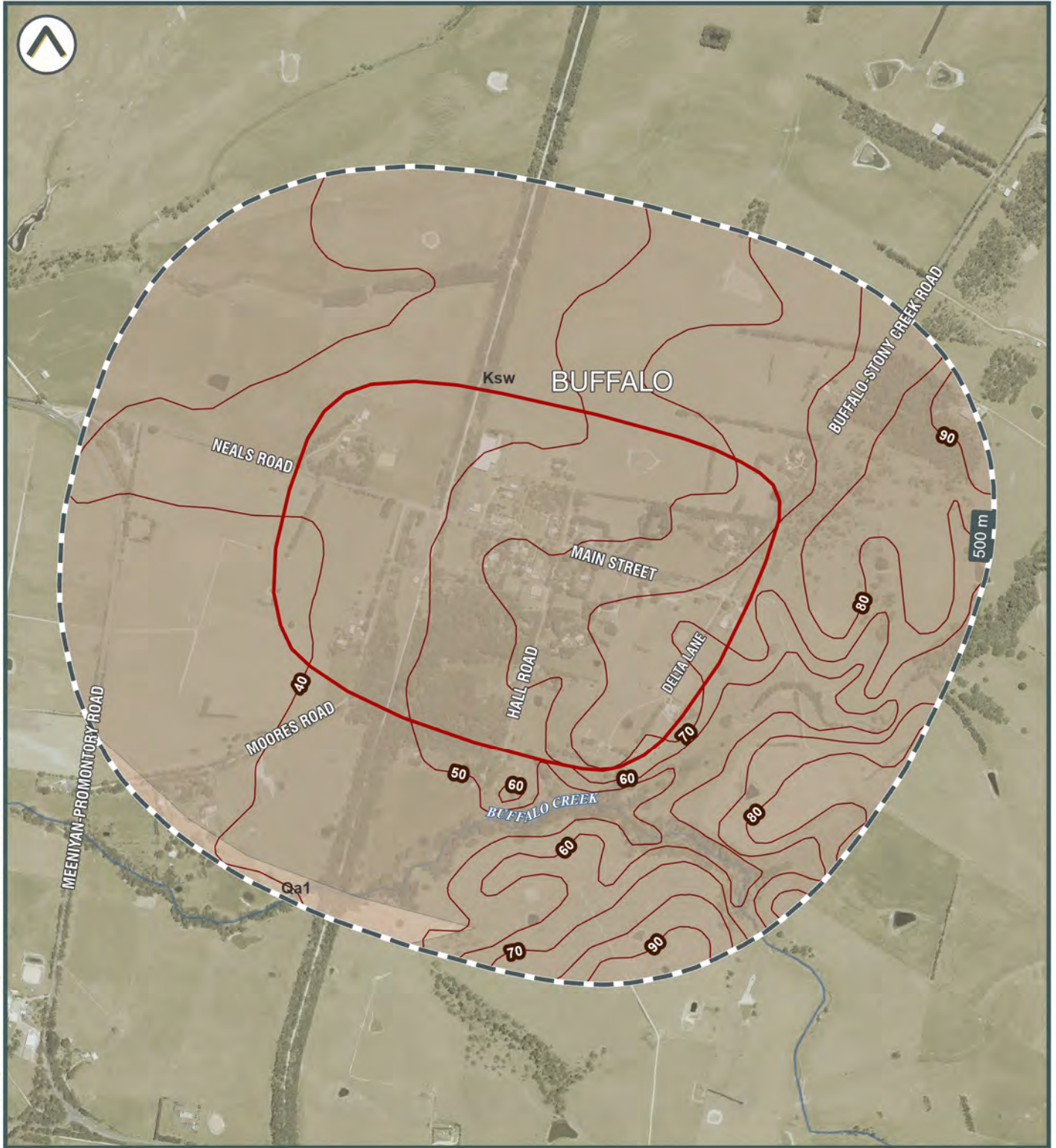


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Geology and Topography



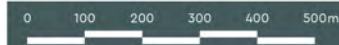
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Subject area  
 Topographic contour (m)

**1:250,000 Geological Units**

Ksw | Lithic volcanoclastic sandstone, arkose, siltstone, minor conglomerate and coal; fluvial

Qa1 | Gravel, sand, silt; variably sorted and rounded; generally unconsolidated; includes deposits of low terraces; alluvial floodplain deposits

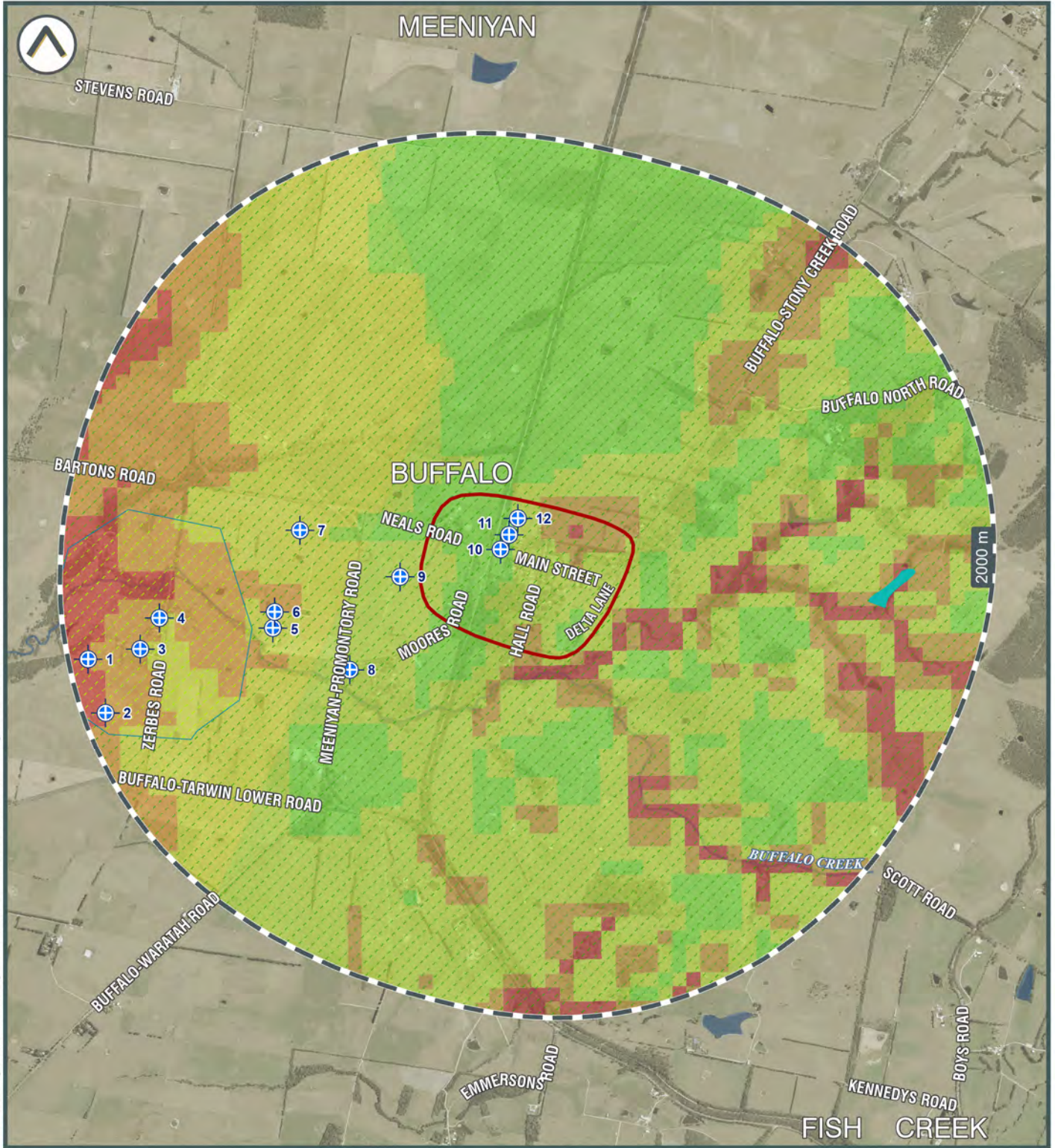


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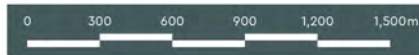


Hydrogeology and Groundwater Boreholes



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- Subject area
- Groundwater bores
- Wetlands
- Groundwater salinity (mg/l)
  - 500 - 1,000
  - 1,100 - 5,000
- Depth to Watertable (m)
  - <5
  - 5-10
  - 10-20
  - 20-50
- Aquifer type
  - Fractured or fissured, extensive aquifers of low to moderate productivity
  - Porous, extensive aquifers of low to moderate productivity

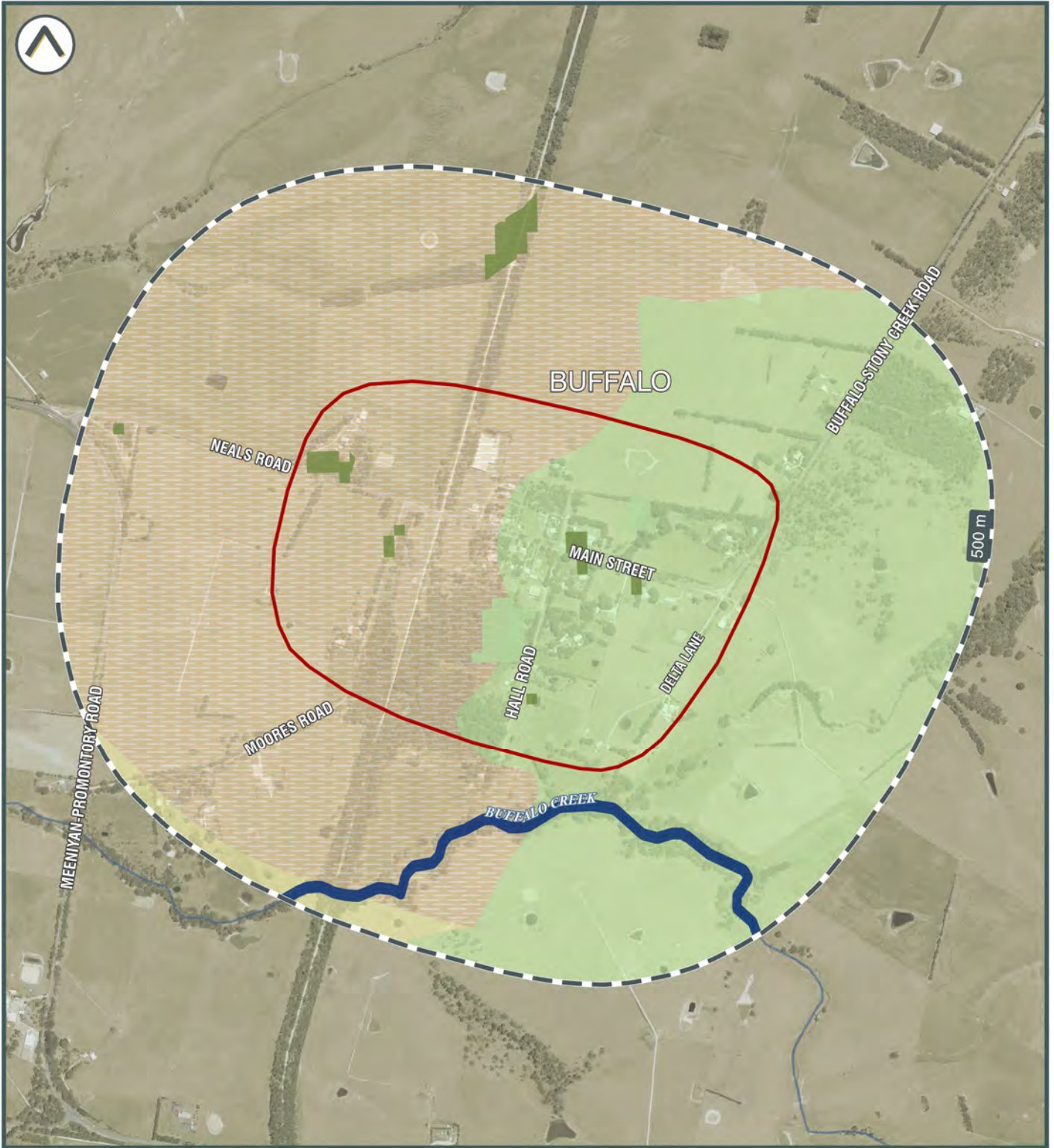


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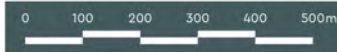


Hydrogeology and Other Boreholes



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- Subject area
- Other boreholes
- Hydrogeologic Unit**
- Surficial Sediment Aquifer (porous media - unconsolidated)
- Upper Tertiary/Quaternary Aquitard (porous media - unconsolidated)
- Mesozoic Fractured Rock Aquifer
- Ecosystems that rely on the Surface expression of Groundwater
- High potential for GW interaction
- Ecosystems that rely on Subsurface presence of Groundwater
- Moderate potential for GW interaction
- Low potential for GW interaction

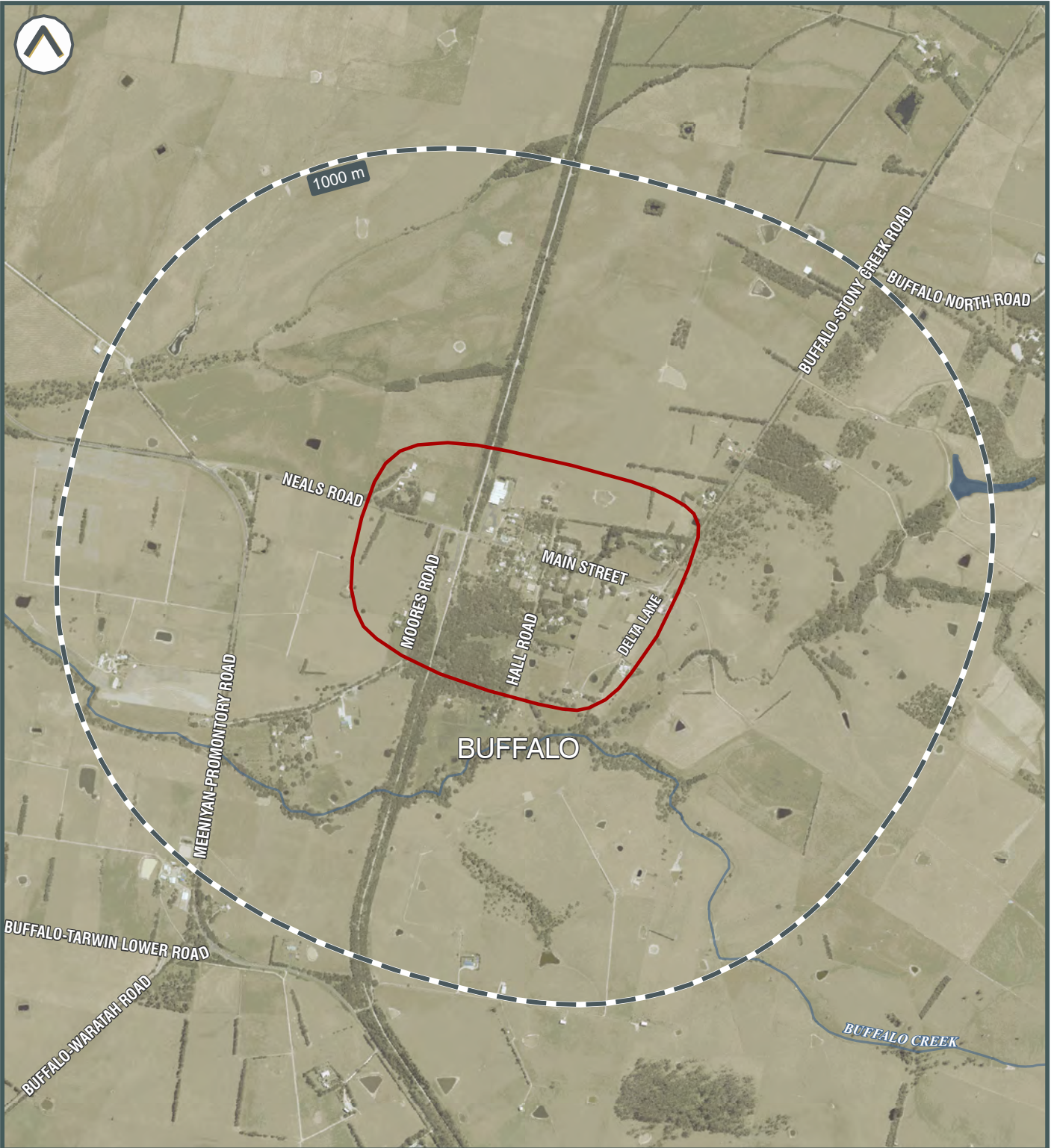


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Contaminated Land Public Register



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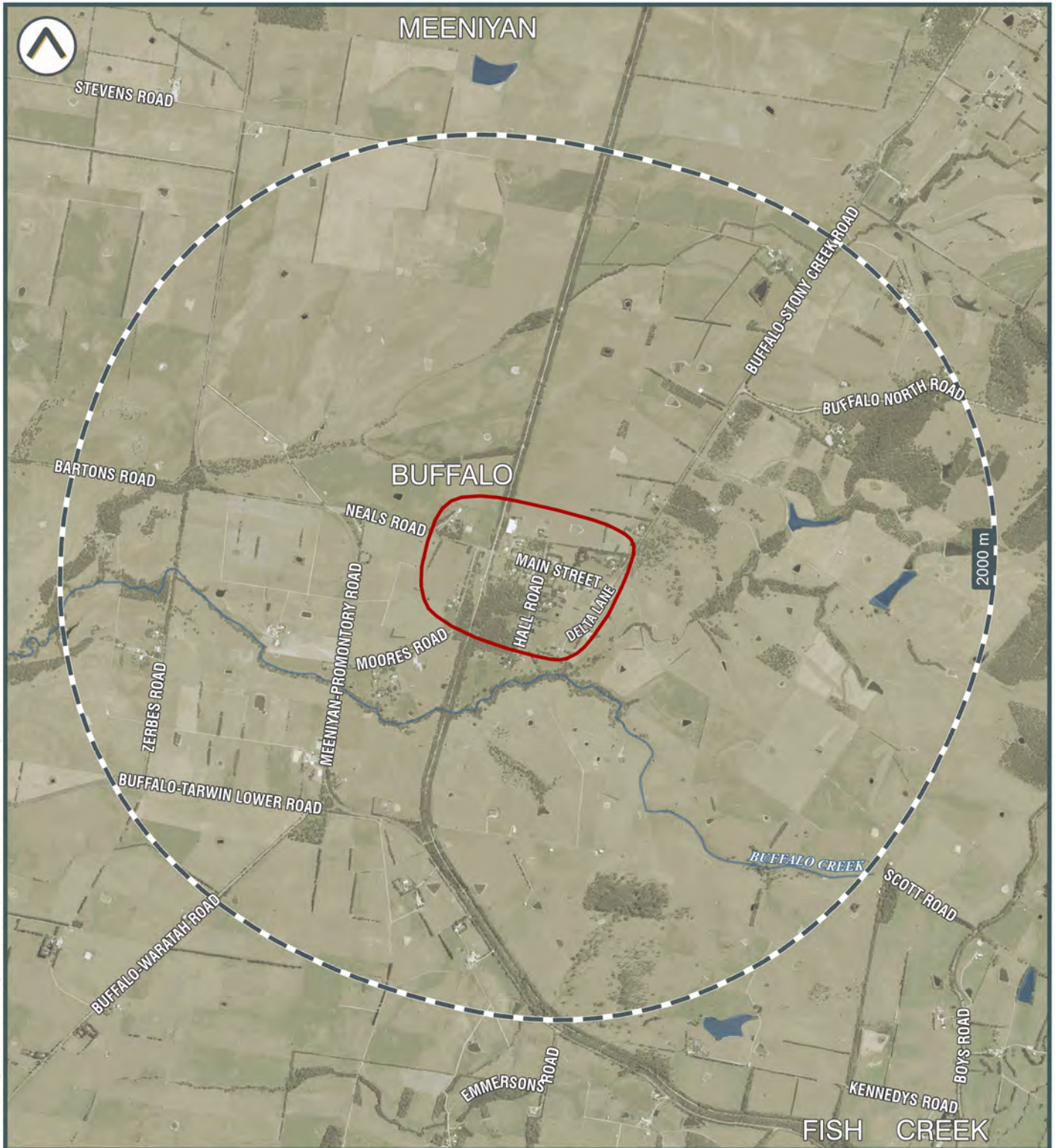
- Subject area
- Contaminated Land Register (EPA)
- Priority Sites Register Audit Report





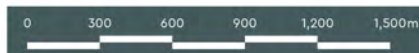


Sites Regulated by other Jurisdictional Body



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- Subject area
- PFAS sites
- Sea Dumping of Depth Charges
- NPI Facilities
- Sea Dumping of Depth Charges (Chemical munitions sea dumping)
- Former Gasworks Sites
- Other Sea Dumping Sites
- Unexploded Ordnance (UXO) Areas
- Other
- Substantial Potential
- Defence Area / Military Sites
- Slight potential
- Defence Controlled Area



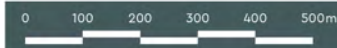


Licences, Approvals & Notices



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Subject area



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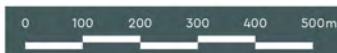
Potentially Contaminating Activities (PCAs)



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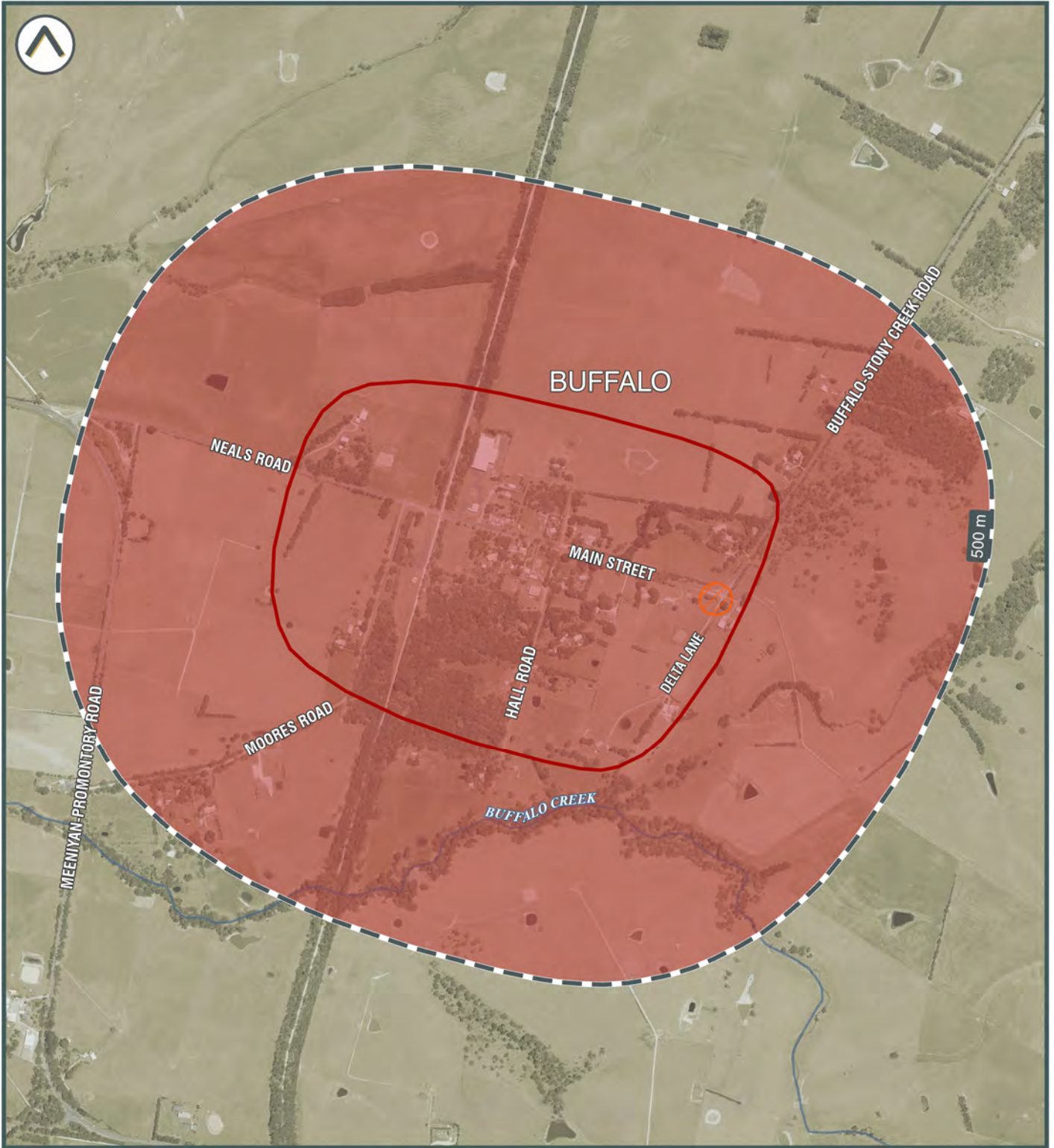
- Subject area
- Liquid Fuel Depots
- Operational Petrol Stations
- Waste Management Facilities
- Former Petrol Stations

Data is current as when this report was created. However due to the turnover of business locations, some addresses may be former.



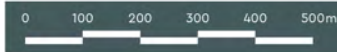


Fire and Flood Hazards



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Subject area
  Fire History
  Bush Fire Prone Land



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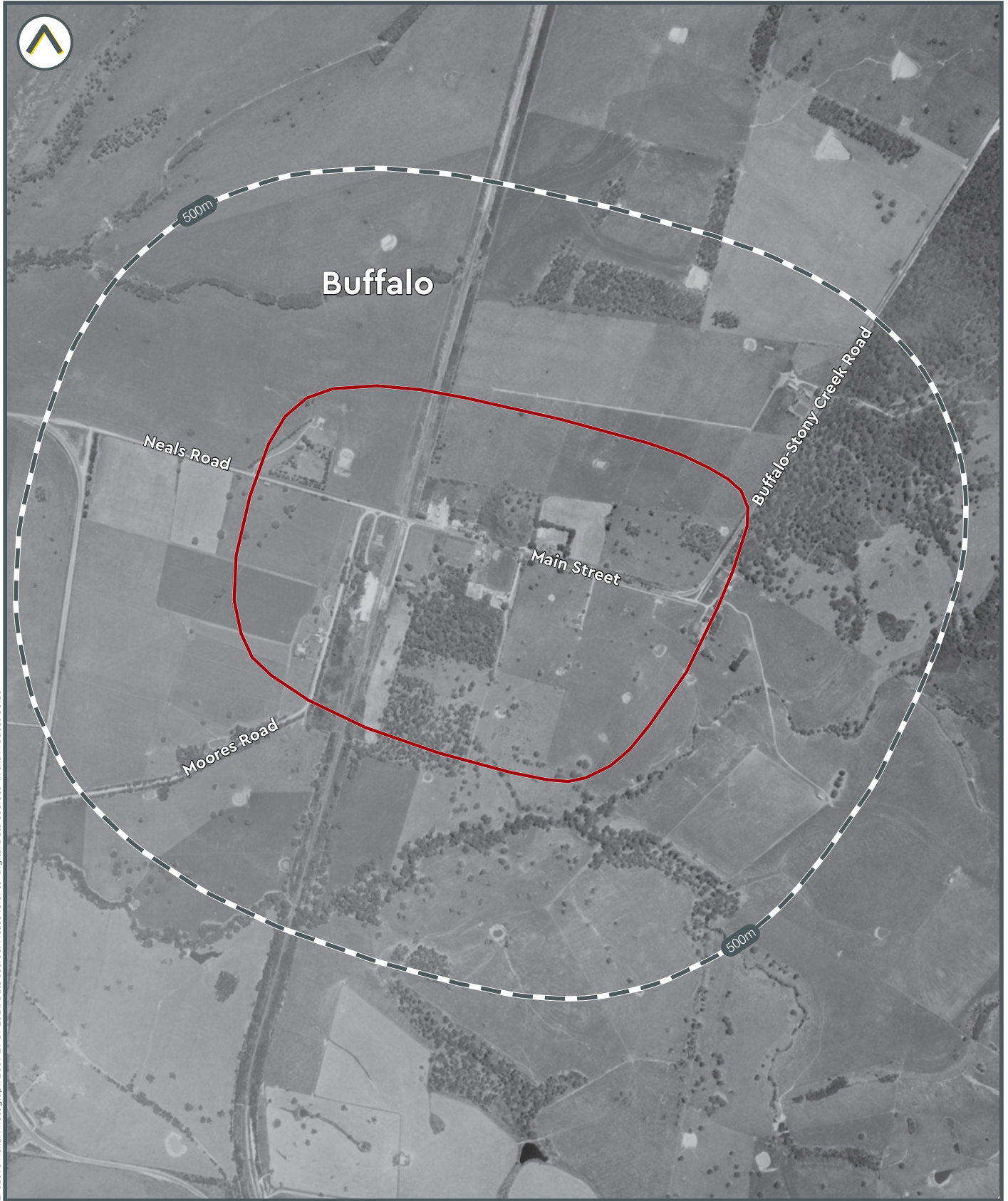


An aerial photograph of a vibrant turquoise river winding through a rugged, rocky landscape. The river is flanked by large, grey boulders and patches of reddish-brown earth. The surrounding terrain is covered with dense, green and yellowish vegetation, including trees and shrubs. The overall scene is a natural, scenic view of a river valley.

# Appendix B

HISTORIC IMAGERY

Historic Aerial Photograph - 1972

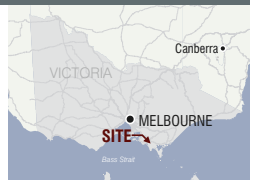


LI-02096 Aerial Photograph 2009 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

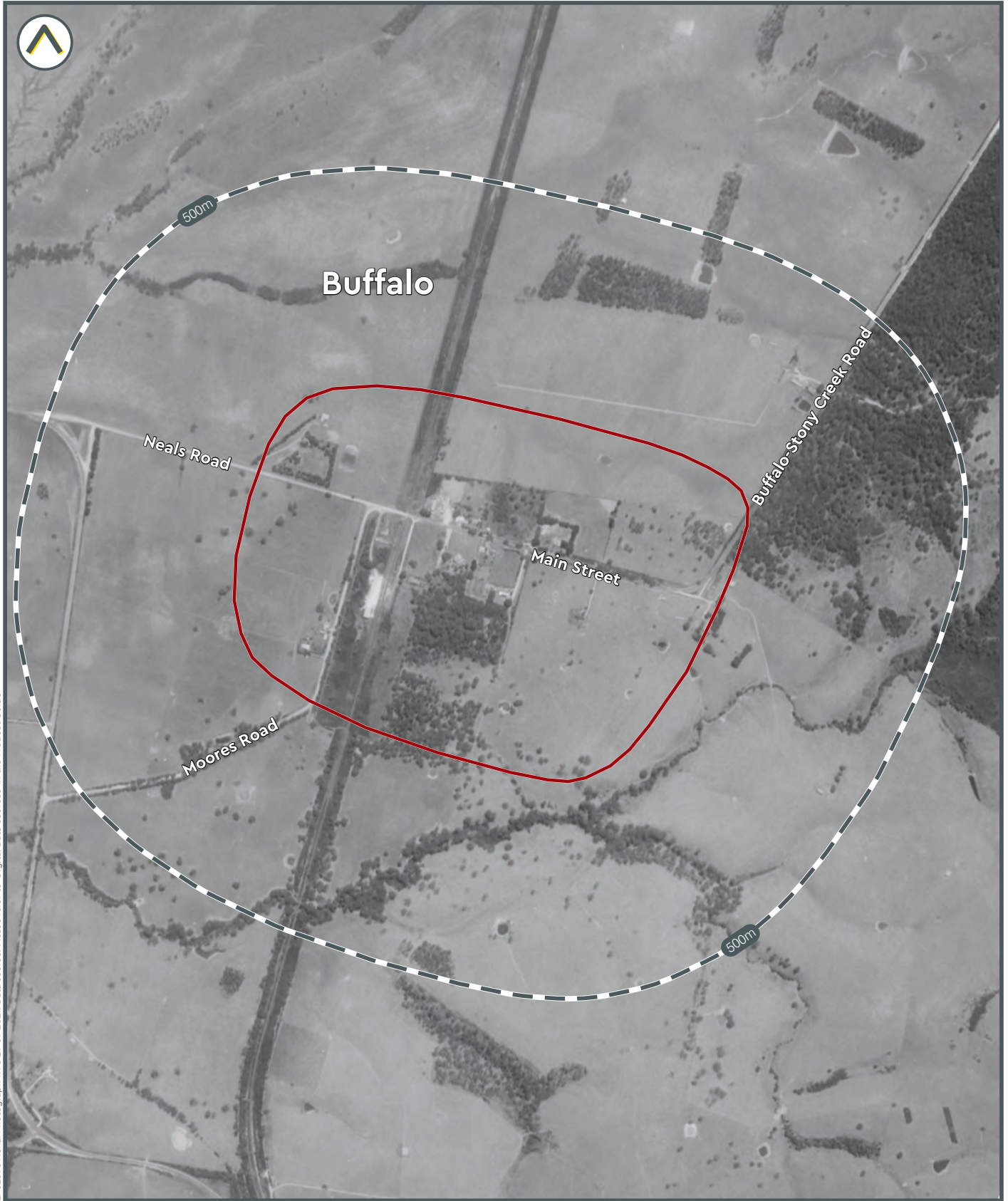
Subject area



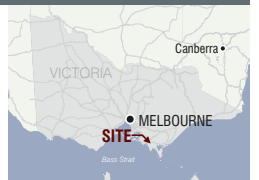
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Historic Aerial Photograph - 1975

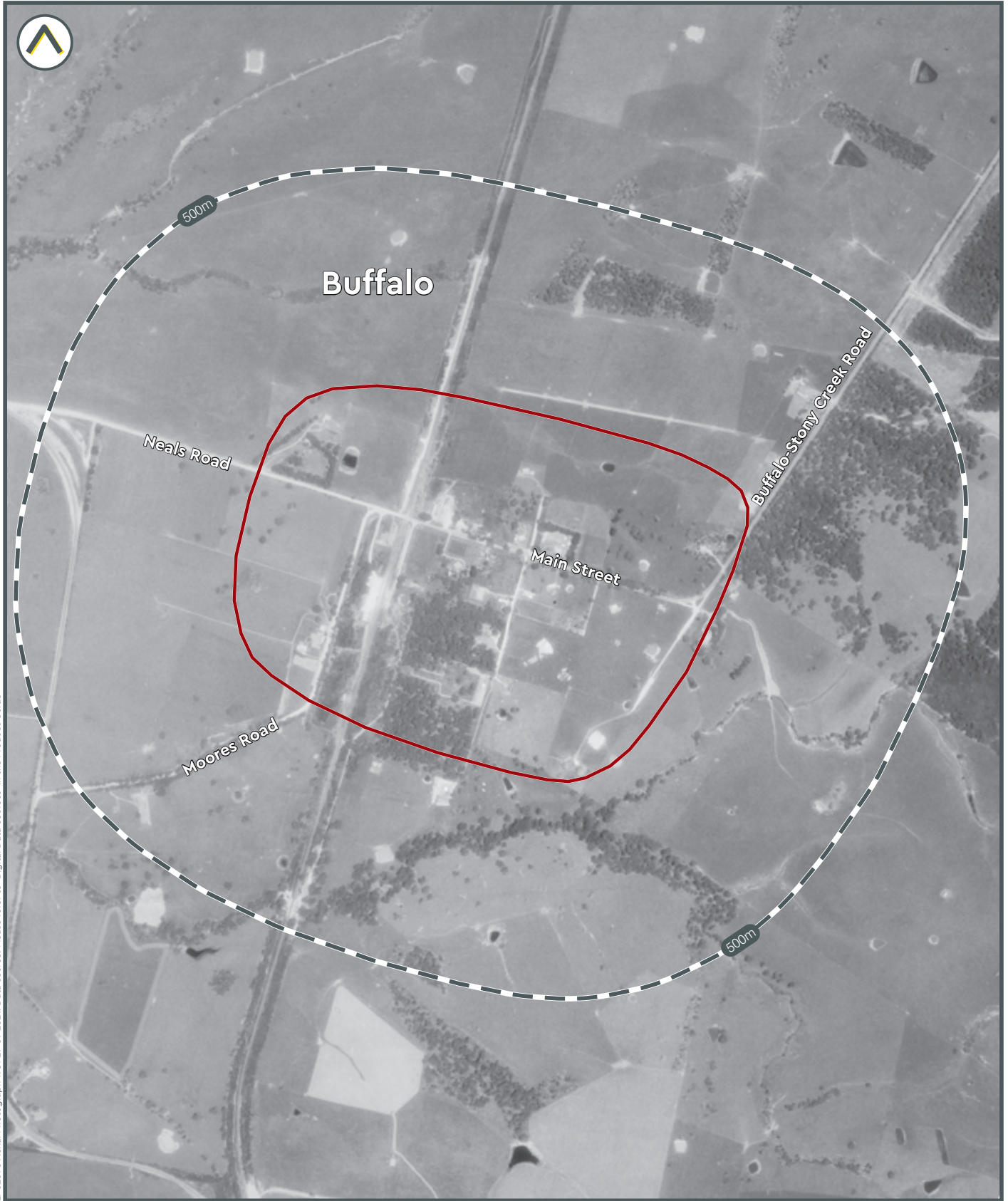


LI-02096 Aerial Photograph 1975 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide





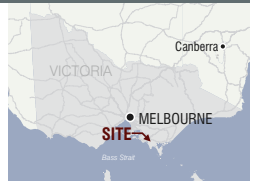
Historic Aerial Photograph - 1981



LI-02096 Aerial Photograph 1981/29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide



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Historic Aerial Photograph - 1985

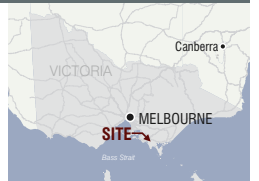


LI-02096 Aerial Photograph 1985 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

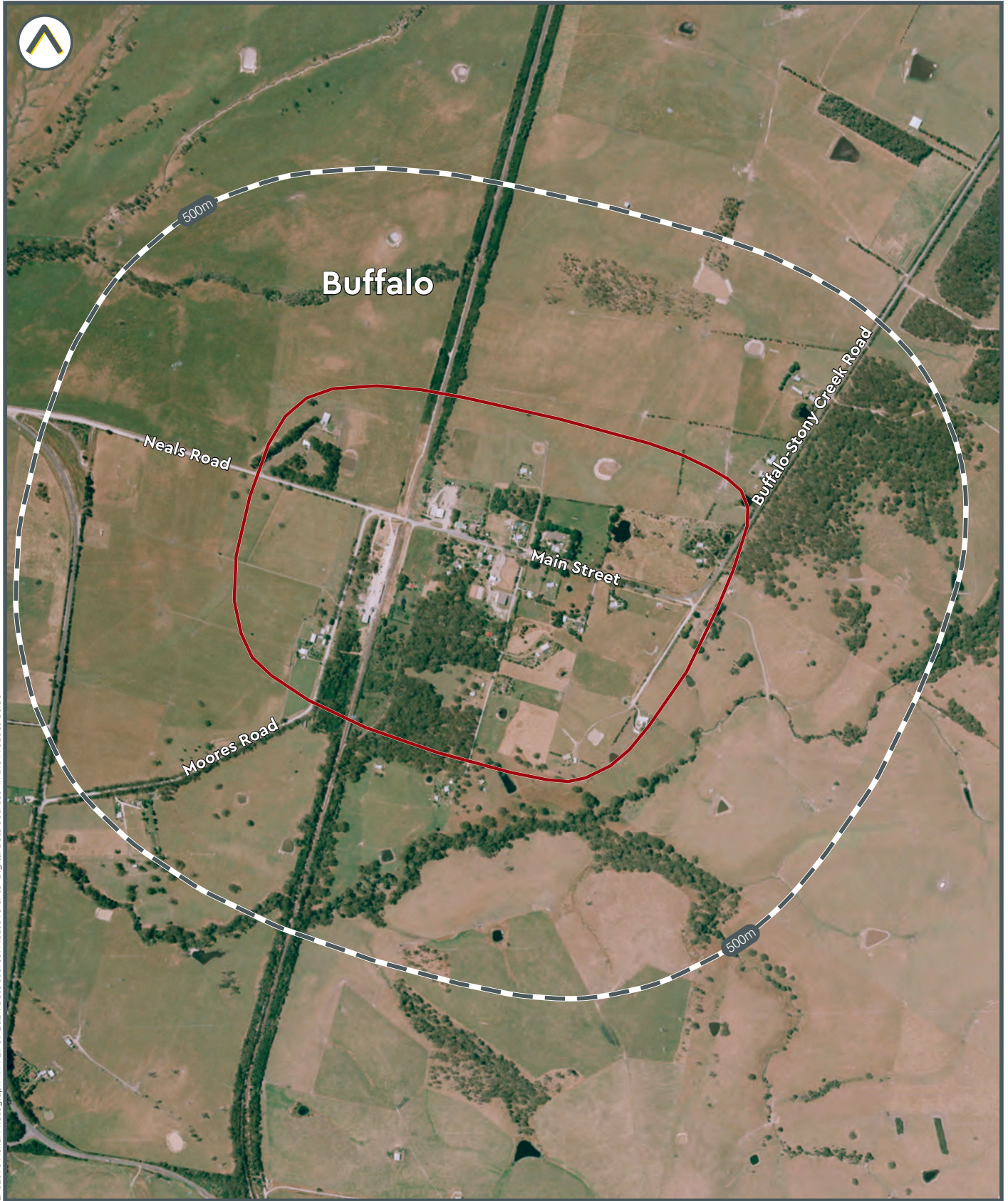
Subject area



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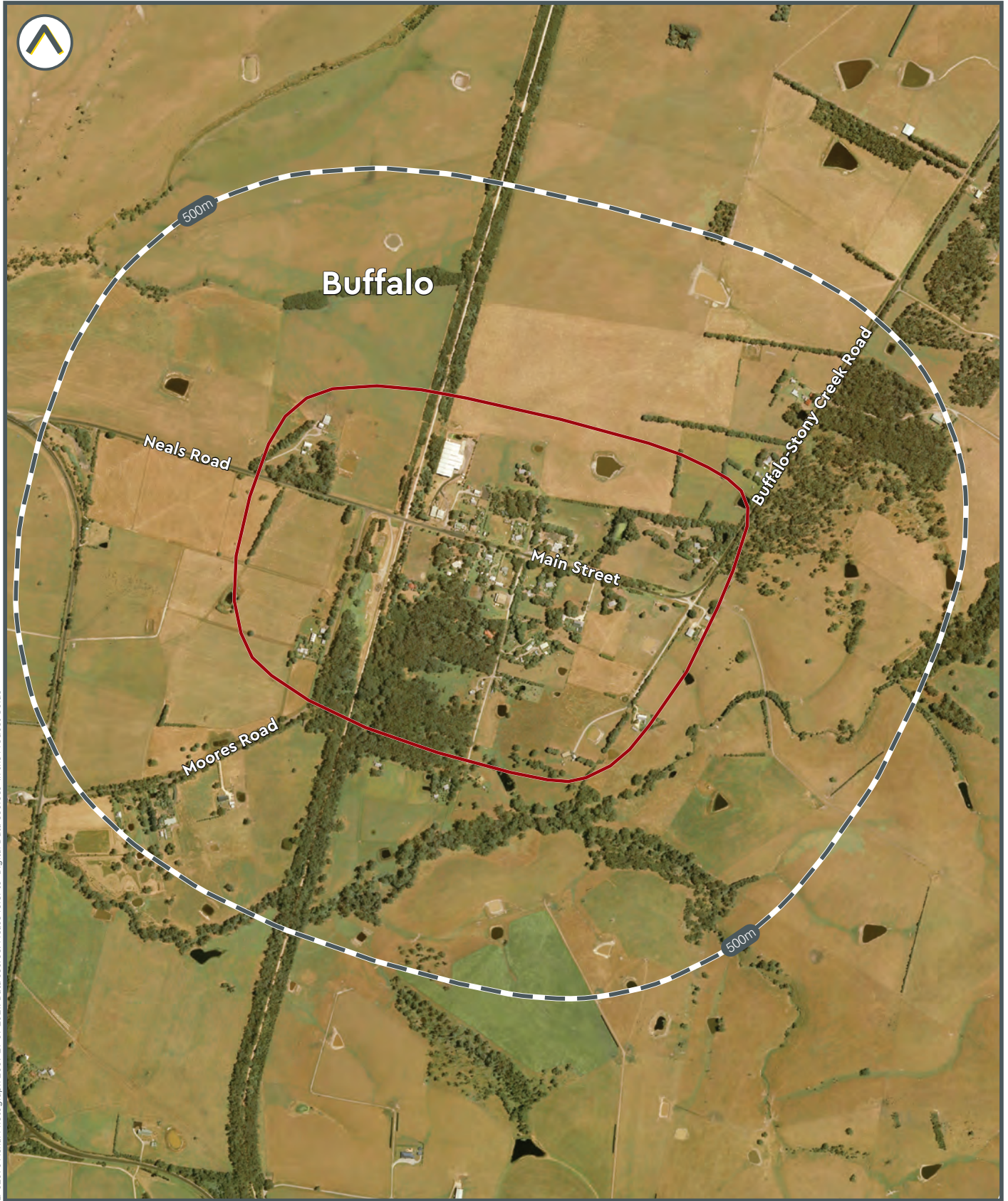
Historic Aerial Photograph - 1991



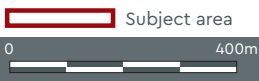
LI-02096 Aerial Photograph 1991.29.09.2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide



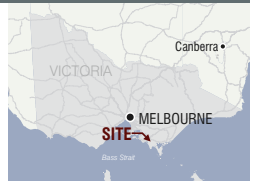
Historic Aerial Photograph - 2009



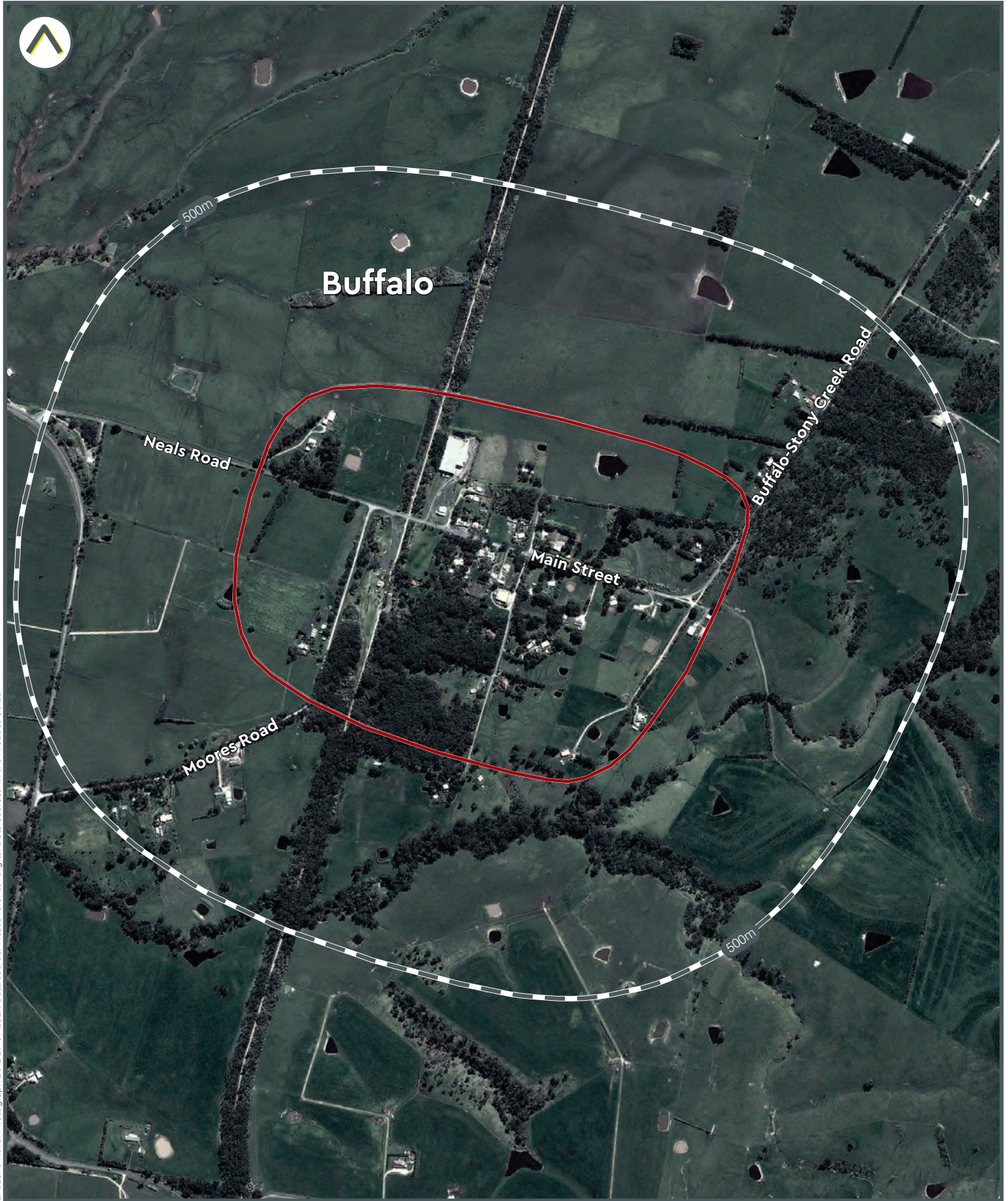
LI-02096 Aerial Photograph, 2009 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide



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Historic Aerial Photograph - 2012

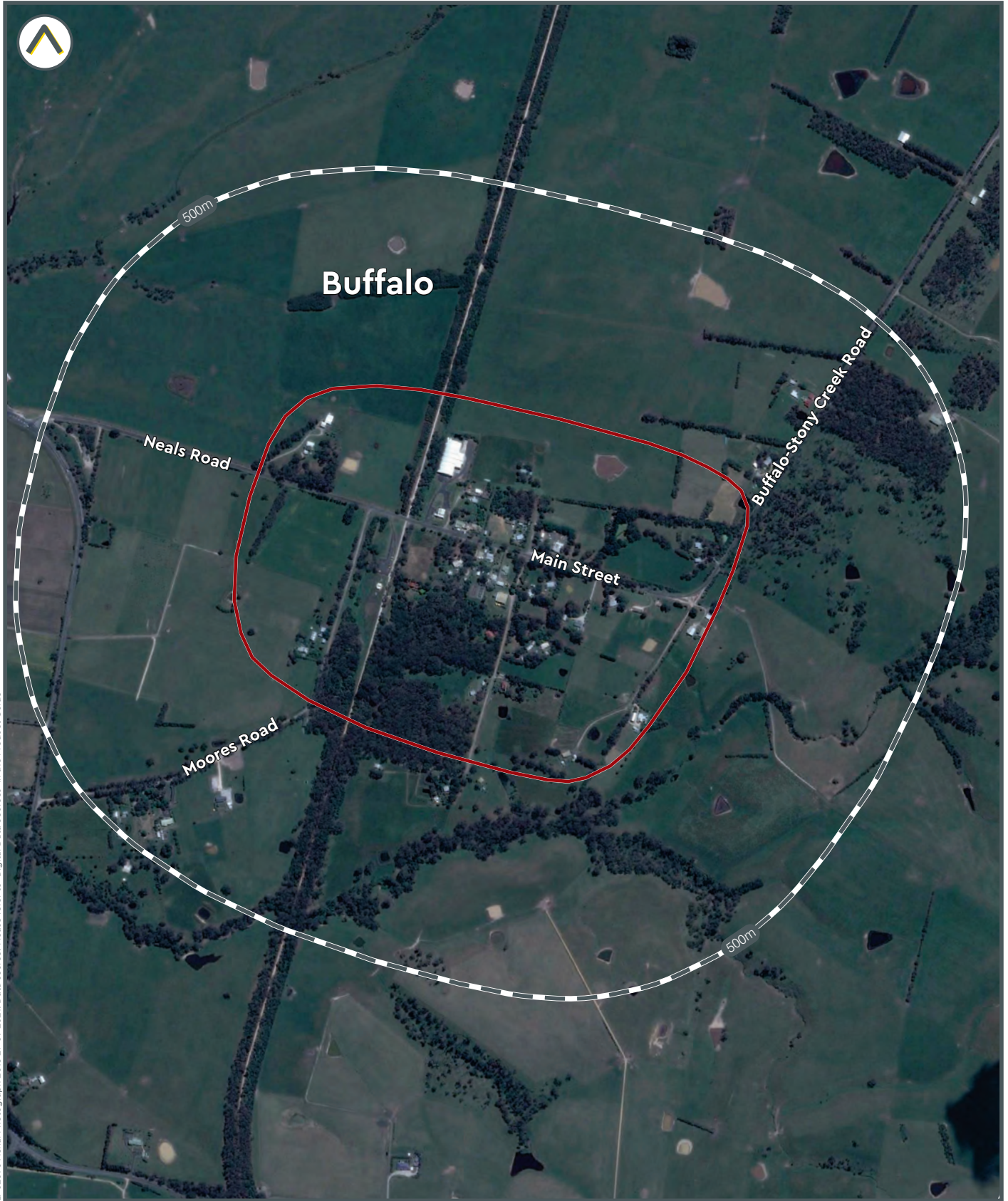


LI-02096 Aerial Photograph 2012 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

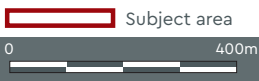
 Subject area

0 400m

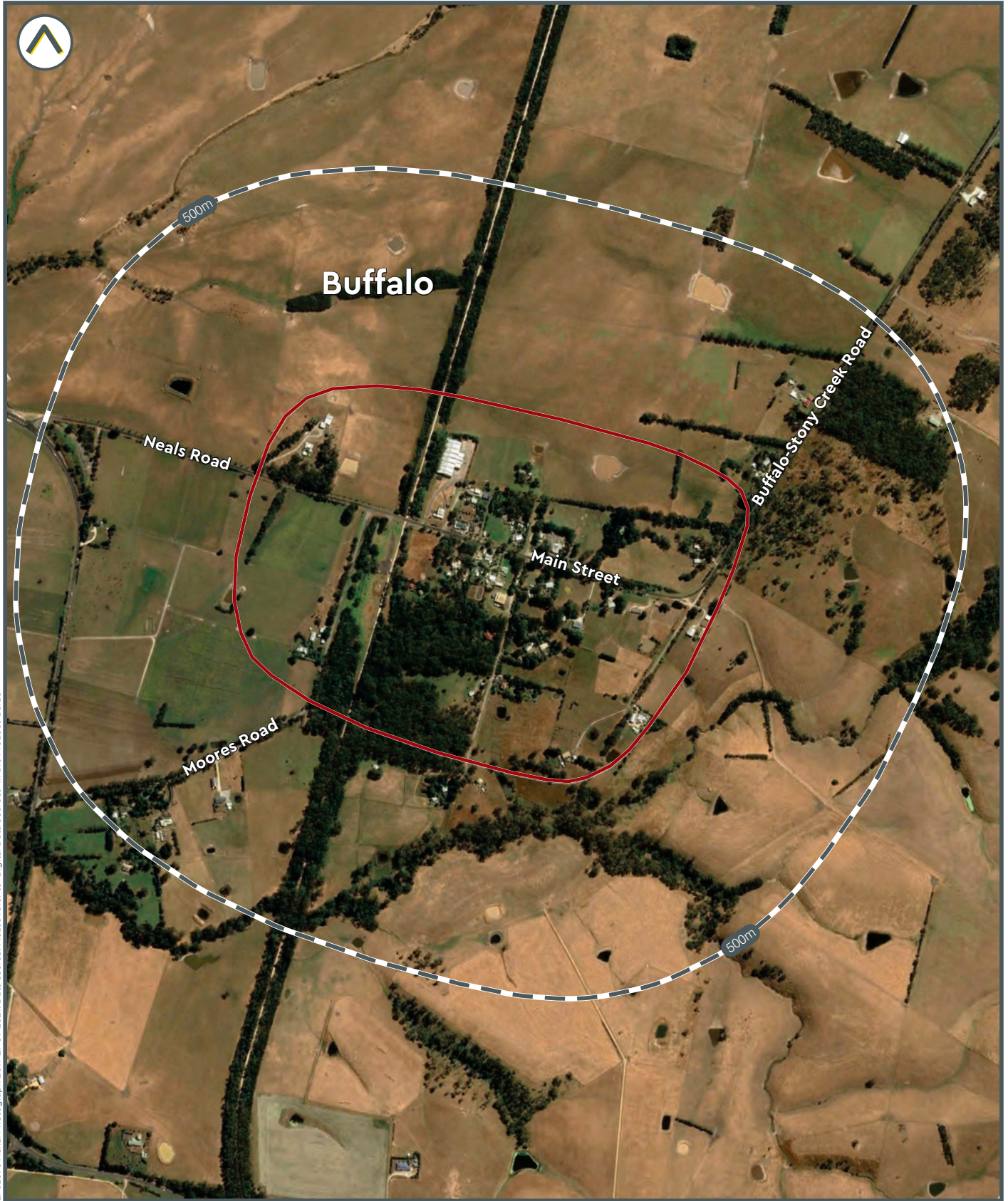
Historic Aerial Photograph - 2015



LI-02096 Aerial Photograph 2015 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide



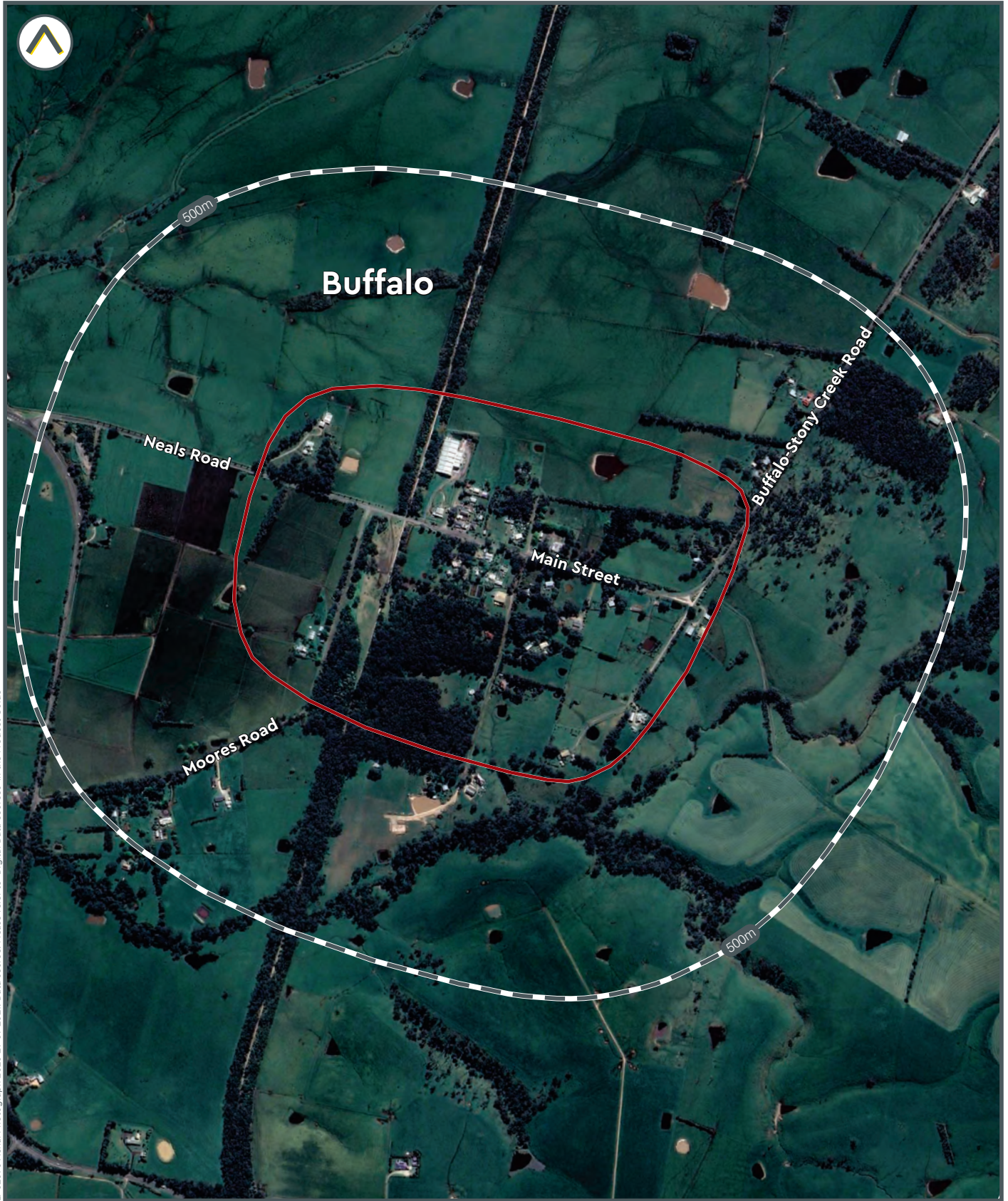
Historic Aerial Photograph - 2019



LI-02096 Aerial Photograph, 2019, 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide



Historic Aerial Photograph - 2020



LI-02096 Aerial Photograph, 2020 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide








# Enviro-Screen

835 Buffalo-Stony Creek Road  
Foster, VIC

27 September 2021





# Understanding your report

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Your Report has been produced by Land Insight and Resources (Land Insight).

Your Report is based on information available from public databases and sources at the date of reporting. The information gathered relates to land that is within a 200 to 2000m radius (buffer zone) from the boundaries of the Property. A smaller or larger radius may be applied for certain records (as listed under records and as shown in report maps).

While every effort is made to ensure the details in your Report are correct, Land Insight cannot guarantee the accuracy or completeness of the information or data provided.

**The report provided by Land Insight includes** data listed on page 4 (table of contents). All sources of data and definitions are provided in the Product Guide (Attached). For a full list of references, metadata, publications or additional information not provided in this report, please contact [info@liresources.com.au](mailto:info@liresources.com.au)

**The report does not include** title searches; dangerous good searches or; property certificates (unless requested); or information derived from a physical inspection, such as hazardous building materials, areas of infilling or dumping/spilling of potentially contaminated materials. It is important to note that these documents and an inspection can contain information relevant to contamination that may not be identified by this Report.

Due to the ongoing nature of database development and frequency of updates provided by various state government regulators the data displayed within this report is only current from date of production.

**This Report, and your use of it, is regulated by Land Insight's Terms and Conditions (See Land Insight's Product Guide).**

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**ATTACHMENTS**

**Attachment A - Report Maps**

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**Land Insight Product Guide and Terms and Conditions**

# SUMMARY

 <b>Section 1</b>	<b>PROPERTY SETTING</b>	<b>Identified</b>
Sensitive Receptors Planning Control Heritage Soil and Land Information Geology and Topography		
 <b>Section 2</b>	<b>HYDROGEOLOGY</b>	<b>Identified</b>
Aquifer Groundwater Bores and Other Borehole investigations Groundwater Dependent Ecosystems (GDE) Hydrogeology Units Wetlands		
 <b>Section 3</b>	<b>ENVIRONMENTAL REGISTERS LICENCES AND INCIDENTS</b>	<b>Not Identified</b>
Contaminated Land Public Register Sites Regulate by Other Jurisdictional Body (Former Gaswork sites / PFAS sites) Licensing and Regulated Sites National Pollutant Inventory (NPI)		
 <b>Section 4</b>	<b>POTENTIALLY CONTAMINATED AREAS</b>	<b>Not Identified</b>
National Liquid Fuel Facilities National Waste Management Facilities		
 <b>Section 5</b>	<b>NATURAL HAZARDS</b>	<b>Identified</b>
Erosion risk Bushfire prone land Fire history Flood hazards		



# Section 1 Property Setting



## 1.1 SENSITIVE RECEPTORS

Map 1.1 (200m Buffer)

Sensitive receptor	Category	Distance (m)	Direction
Not identified	-	-	-

## 1.2 PLANNING CONTROLS

Map 1.2 (onsite)

### Zoning

Code	Zoning	Details
FZ	FARMING ZONE	-

### Planning Overlay

Type	Category	Details
LSIO	LSIO	LAND SUBJECT TO INUNDATION OVERLAY

### Other Planning Information

Type	Category	Details
Not identified	-	-



### 1.3 HERITAGE

### Map 1.3 (200m Buffer)

#### State and Local Heritage

Site ID	Site Name	Type	Details	Distance (m)	Direction
4975	-	Areas of Cultural Heritage Sensitivity (CHS)	-	0.0	onsite

#### Australian Heritage Database

Site ID	Site Name	Type	Details	Distance (m)	Direction
Not identified	-	-	-	-	-

Commonwealth Heritage List, National Heritage List and World Heritage Area.

### 1.4 SOIL AND LAND USE INFORMATION

### Map 1.4a/1.4b (onsite)

#### Soil Landscape

Soil Landscape	FfcQ7-1	fc	Soil Group	'Loams, Duplex soils'
Description	Intermediate Terraces - Gippsland			

#### Salinity

Salt Susceptibility	Low	Areas with yellow clayey soils but in which salt seeps have not been recorded
---------------------	-----	---

#### Radon

Radon Level	Bq/m <sup>3</sup>	7
-------------	-------------------	---

Typical radon levels in Australia are low and the values shown are the average values for each census district. For specific location, factors such as the local geology and house type could lead to different values. (ARPANSA).

#### Acid Sulfate Soil

Coastal Acid Sulfate Soil Hazard (CASS) (Table 1.4.1)	On the Property?	Within Buffer?
Class	Not identified	Not identified

#### National Acid Sulfate Soils Atlas

Atlas of Australian ASS (Table 1.4.2)	Cq(p4)	ASS in inland lakes, waterways, wetlands and riparian zones	Probability of Occurrence	Extremely low probability of occurrence
--	--------	---	---------------------------	---

**Table 1.4.1. Classification for Coastal Acid Sulfate Soils (CASS)**

Class of Land as shown on ASS Planning Maps	
<b>Prospective Land</b>	Land that has the potential to contain Coastal Acid Sulfate Soils as indicated by geomorphology.
<b>Made Land</b>	Land that has been modified by human agency. Here, the geomorphic features that indicate the potential to contain Coastal Acid Sulfate Soil, no longer exist. Assessment of the potential depends on information such as geology maps or soil maps, that pre-dates modification.

Data represents Victorian coastal lands which have the potential to contain acid sulfate soil (CASS), i.e. it is prospective for CASS. The data is used for triggering an investigation of a site where proposed activities risk disturbing CASS. Department of Environment and Primary Industries.

**Table 1.4.2. Atlas of Australian Acid Sulfate Soils<sup>1</sup> (ASRIS) (CSIRO/NatCASS)**

<b>Probability of Occurrence of ASS<sup>1</sup></b>	
<b>A</b>	<b>High Probability of occurrence</b> - (>70% chance of occurrence in mapping unit)
<b>B</b>	<b>Low Probability of occurrence</b> - (6-70% chance of occurrence in mapping unit)
<b>C</b>	<b>Extremely low probability of occurrence</b> - (1-5% chance of occurrence in mapping unit)
<b>D</b>	<b>No probability of occurrence</b> - (<1% chance of occurrence in mapping unit)
<b>x</b>	<b>Disturbed ASS<sup>1</sup> terrain</b> - (ASS <sup>1</sup> material present below urban development).
<b>u</b>	<b>Unclassified</b> - (Insufficient information to classify map unit)
<b>Zones</b>	
<b>a</b>	Potential acid sulfate soil material and/or Monosulfidic Black Ooze (MBO).
<b>b, c</b>	Potential acid sulfate soil generally within upper 1 m.
<b>c, d, e</b>	ASS <sup>1</sup> generally within upper 1 m.
<b>f</b>	ASS <sup>1</sup> generally below 1 m from the surface
<b>g</b>	ASS <sup>1</sup> , generally below 3 m from the surface.
<b>h</b>	ASS <sup>1</sup> generally within 1 m of the surface.
<b>i, j</b>	ASS <sup>1</sup> generally below 1 m of the surface.
<b>k</b>	ASS <sup>1</sup> material and/or Monosulfidic Black Ooze (MBO).
<b>l, m, n, o, p, q</b>	ASS <sup>1</sup> generally within upper 1 m in wet / riparian areas.
<b>Subscripts to codes</b>	
<b>(a)</b>	Actual acid sulfate soil (AASS) = sulfuric material.
<b>(p)</b>	Potential acid sulfate soil (PASS) = sulfidic material.
<b>(q)</b>	Monosulfidic Black Ooze (MBO) is organic ooze enriched by iron monosulfides.
<b>Confidence levels</b>	
<b>(1)</b>	All necessary analytical and morphological data are available
<b>(2)</b>	Analytical data are incomplete but are sufficient to classify the soil with a reasonable degree of confidence
<b>(3)</b>	No necessary analytical data are available, but confidence is fair, based on a knowledge of similar soils in similar environments
<b>(4)</b>	No necessary analytical data are available, and classifier has little knowledge or experience with ASS, hence classification is provisional

<sup>1</sup>Acid Sulfate Soils (ASS) are all those soils in which sulfuric acid may be produced, is being produced, or has been produced in amounts that have a lasting effect on main soil characteristics (Pons 1973). Acid sulfate soil (ASS) may include PASS or AASS + PASS. Potential acid sulfate soil (PASS) = sulfidic material. Actual acid sulfate soil (AASS) = sulfuric material.

## 1.5 GEOLOGY AND TOPOGRAPHY

Map 1.5 (onsite)

### Geology

Map Sheet	Symbol	Name	Geologic History	Lithology	Description
1:50,000 Geological Units	Qa1	Alluvium (Qa1): generic	Pleistocene to Holocene (channelled stream flow-fluvial [environment])	silt [material] (significant); sand (significant); gravel [material] (significant)	Gravel, sand, silt: variably sorted and rounded; generally unconsolidated; includes deposits of low terraces; alluvial floodplain deposits

### Naturally Occurring Asbestos Potential (NOA)

Category	On the Property?	Within Buffer?
Not identified	-	-

### Topography

Topography	40 mAHD
------------	---------



## Section 2 Hydrogeology



### 2.1 HYDROGEOLOGY AND GROUNDWATER BORES

Map 2.1 (2000m Buffer)

	On the Property?	Within Buffer?
Aquifer Type	Fractured or fissured, extensive aquifers of low to moderate productivity	Fractured or fissured, extensive aquifers of low to moderate productivity
Designated Water Supply Catchments	Not identified	Tarwin River (Meeniyán)
Depth to Watertable (m)	<5	<5 - 50
Wetlands	Not identified	Not identified
Groundwater Salinity (mg/L)	3500	1000 - 3500

#### Groundwater Quality Restricted Use Zones

Number	Address	Site history	Restrictions on Use	Distance (m)	Direction
Not identified	-	-	-	-	-

#### Groundwater Bores

Map ID	Groundwater Bore ID	Authorised Purpose	Completion Date	Drilled Depth (m)	Final Depth (m)	SWL (m)	Salinity (mg/l)	Yield (L/s)	Distance (m)	Direction
3	318825	Unknown	31/12/1916	298.0	297.8	<Null>	<Null>	<Null>	160.5	South-west
4	318829	Unknown	23/05/1982	120.0	120.0	<Null>	<Null>	<Null>	795.7	East
5	77656	Stock and Domestic	4/02/1983	30.0	30.1	<Null>	<Null>	0.316	912.3	East
1	227271B	Unknown	<Null>	0.0	0.0	<Null>	<Null>	<Null>	1149.6	South-west

Map ID	Groundwater Bore ID	Authorised Purpose	Completion Date	Drilled Depth (m)	Final Depth (m)	SWL (m)	Salinity (mg/l)	Yield (L/s)	Distance (m)	Direction
2	318824	Unknown	31/12/3793	488.0	487.8	<Null>	<Null>	<Null>	1246.8	North-west

### Groundwater Bores Driller Lithology Details

Groundwater Bore ID	From Depth – To Depth (m)	Lithology	Distance (m)	Direction
318825	#N/A		160.5	South-west
318829	#N/A		795.7	East
77656	#N/A		912.3	East
227271B	#N/A		1149.6	South-west
318824	#N/A		1246.8	North-west

## 2.2 HYDROGEOLOGY AND OTHER BOREHOLES

### Map 2.2 (500m Buffer)

	On the Property?	Within Buffer?
Groundwater Management Areas	Not identified	-
Hydrogeologic Unit	Surficial Sediment Aquifer (porous media - unconsolidated)	Surficial Sediment Aquifer (porous media - unconsolidated) Upper Tertiary/Quaternary Aquitard (porous media - unconsolidated)

### Groundwater Dependent Ecosystems (GDE)

	On the Property?	Within Buffer?
Aquatic	Not identified	High potential for GW interaction
Terrestrial	Not identified	Moderate potential for GW interaction High potential for GW interaction

*Aquatic - Ecosystems that rely on the Surface expression of groundwater.*

*Terrestrial - Ecosystems that rely on the Subsurface expression of groundwater.*

### Other Known Borehole Investigations (Coal Seam Gas (CSG), Petroleum Wells and Other Boreholes)

Borehole ID	Purpose	Project	Client/ License	Date Drilled	Depth (m)	Distance (m)	Direction
318825	Coal	Dept. Manufacturing & Industry	Department of Manufacturing & Industry Development	13/02/1917	297.8	162.2	South-west
77656	Groundwater	Rural Water Commission	Private Individual/Corporation	04/02/1983	30.1	399.4	East



# Section 3 Environmental Registers, Licences and Incidents



## 3.1 CONTAMINATED LAND PUBLIC REGISTER

Map 3.1 (1000m Buffer)

### Environmental Audit Reports

CARMS No.	Address	Audit Category	Distance (m)	Direction
Not identified	-	-	-	-

### Priority Site Register

Notice No.	Address	Issue	Distance (m)	Direction
Not identified	-	-	-	-

**Table 3.1.1 Sections 53X and 53V of the Environment Protection Act 1970**

EPA Types of Environmental Audits	
<b>53X Audits</b>	A 53X ('condition of the environment') audit is most frequently used by the planning system and verifies that potentially contaminated land can be used for a specific use (industrial, commercial or residential). From a 53X audit comes either a certificate or statement of environmental audit.
<b>53V Audits</b>	A 53V ('risk of harm') audit is most commonly used by EPA to understand the risk to the environment posed by an industrial activity or to validate that cleanup of contaminated land or groundwater has occurred. The 53V audit assesses the risk of any possible harm to a site caused by an industrial process or activity, waste substance or noise. This includes audits associated with the construction and operation of landfills.

### 3.2 SITES REGULATED BY OTHER JURISDICTIONAL BODY

Map 3.2 (2000m Buffer)

#### Defence, Military Sites and UXO Areas

Site name	Type*	Description	Distance (m)	Direction
Not identified	-	-	-	-

\*RCIP (Regional Contamination Investigation Program). UXO (Unexploded Ordnance Areas)

#### Former Gasworks Sites

Site name	Description	Distance (m)	Direction
Not identified	-	-	-

#### PFAS Sites

Site name	Description	Distance (m) *	Direction
Not identified	-	-	-

#### National Pollutant Inventory (NPI)

Facility name	Address	Primary ANZSIC Class	Latest report	Distance (m)	Direction
Not identified	-	-	-	-	-

### 3.3 LICENCES, APPROVALS & NOTICES

Map 3.3 (500m Buffer)

#### Licences

Licence No.	Type	Company Name	Address	Details	Distance (m)	Direction
Not identified		-	-	-	-	-

If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.

#### Approvals

Doc No.	Type	Company Name	Address	Details	Distance (m)	Direction
Not identified		-	-	-	-	-

If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.

#### Notices

Transaction No.	Type	Company Name	Address	Distance (m)	Direction
Not identified		-	-	-	-

If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.

<b>Table 3.3.1 EPA Regulatory Instruments Explanation</b>	
<b>Approvals</b>	
<b>Works approval is required for industrial and waste management activities that have the potential for significant environmental impact.</b>	
<b>Works Approval</b>	EPA's works approval process is designed to ensure the best and most cost-effective environmental outcomes on projects are achieved. Without works approvals there is an increased risk of industrial projects causing pollution issues and requiring expensive retrofitting.
<b>30A Approval</b>	Section 30A is an overriding provision of the Environment Protection Act 1970 (the Act) under which EPA can authorise discharges, emissions, storage, treatment, disposal and handling of waste in emergencies and other temporary situations that would otherwise be an offence under the Act. 30A approvals are not issued lightly, as they permit activities that would not normally be allowed.
<b>Notices</b>	
<b>Remedial notices are served to prevent or remedy a range of non-compliances or likely non-compliances. Remedial notices are not punitive measures.</b>	
<b>Clean Up Notice</b>	Clean up notices (CUN) are issued under section 62A of the <i>Environment Protection Act 1970</i> . They aim to prevent further contamination and impact on beneficial uses through removal of waste, undertaking clean-up activities, ongoing management of pollution, altered handling, storage or location of industrial or prescribed industrial waste.
<b>Minor Works Pollution</b>	Minor works pollution abatement notices (MWPANs) are issued under section 31B of the EP Act. They aim to prevent further occurrence of pollution or potential environmental risk through installation of risk controls and changes to onsite processes and practices in urgent situations.
<b>Pollution Abatement Notice</b>	Pollution abatement notices are issued under section 31A of the <i>Environment Protection Act 1970</i> . They aim to prevent further occurrence of pollution or potential environmental risk through installation of risk controls and changes to on-site processes and practices.
<b>Post closure pollution abatement notices (PC PAN)</b>	Post Closure Pollution Abatement Notices (PAN's) are formal legal enforceable Notices issued by EPA on former landfill sites. The environmental risks posed by landfill sites continue for a significant period of time after waste acceptance has ceased.
<b>Licences</b>	
<b>EPA licence is required for all scheduled premises. It allows the licence-holder to operate and sets conditions that they must meet.</b>	
<b>Licence</b>	Licences contain standard conditions that aim to control the operation of the premises so that there is no adverse effect on the environment. These conditions address areas such as waste acceptance and treatment, air and water discharges, and noise and odour.
<b>Amalgamated Licence</b>	An amalgamated licence is a legal document that contains standard conditions to control the operation of scheduled premises to minimise impacts on the environment. These conditions address areas such as waste acceptance and treatment, air and water discharges, noise and odour.





# Section 4 Potentially Contaminated Areas



## 4.1 POTENTIALLY CONTAMINATING ACTIVITIES

Map 4.1 (500m Buffer)

### Liquid Fuel Facilities

Site name	Category	Location	Status*	Distance (m)	Direction
Not identified	-	-	-	-	-

### Waste Management Facilities & Recycling Centres

Site name	Category	Location	Status*	Distance (m)	Direction
Not identified	-	-	-	-	-

Liquid Fuel Facilities Datasets, representing the spatial locations of liquid fuel depots, refineries, terminals and petrol stations present in the Australian Government National Liquid Fuel Facilities Dataset and Petrol stations identified by Land Insights.

Waste Management Facilities, representing the spatial locations of reprocessing facilities, transfer stations and landfills present in the Australian Government National Waste Management Facilities Dataset and Waste/Recycling facilities identified by Land Insights.

A more comprehensive list of all Potentially Contaminating Activities is available in the Due Diligence Insight report.

**\*Status:**

Data is current as when this report was created. However due to the turnover of business locations, some addresses may be former. Current: business is operating on the day this report was issued.

Former: business that have been closed or discontinued 1 to 2 years prior from the day this report was issued. All former sites older than 2 years will be reported in the 'Historical Potentially Contaminating Activities' section 4.4 in this report.

## 4.2 HISTORICAL POTENTIALLY CONTAMINATING ACTIVITIES

(not mapped)

### 1900 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

### 1905 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

### 1915 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

### 1925 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

### 1935 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

### 1940 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

### 1945 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

### 1955 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

### 1965 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

### 1970 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

### 1975 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

### 1980 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

### 1990 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

### 2005 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

### 2010 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

### 2015 Historical Business Data

Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
Not identified	-	-	-	-	-

Land Insight uses a number of address geocoding techniques and characterised them according to the following criteria: completeness (match rates) and positional accuracy. When a historical street address does not contain complete details or a match is not found, a record identified as being in the surrounding area will be included for reference and the accuracy of the data is approximate only. The positional accuracy of the records is listed below:

## Historical data positional accuracy and georeferencing results explanation

Positional accuracy	Georeferenced	Description
Address	Located to the address level	<i>When street address and names fully match.</i>
Street	Located to the street centroid	<i>When street names match but no exact address was found. Location is approximate.</i>
Place	Located to the structure, building or complex	<i>When building, residential complex or structure name match but no exact address was found. Location is approximate.</i>
Suburb	Located to the suburb area	<i>When suburb name match but no exact address was found. Location is approximate.</i>

The data used in this section was extracted from range of historical commercial trade directories and historical business listing information. The business addresses were geocoded using historical information and cannot be relied upon as some of the addresses no longer exist. From 2005, the historical business records in this section are considered more accurate as information was extracted from digital directories with geographic coordinate location information available. For more information on how these records were geocoded and the methodology used by Land Insight, contact us at [info@landinsight.co](mailto:info@landinsight.co).

Historical Industries or business activities deemed to be of negligible or lesser risk are not reported. Please note that any record not identified within this section (due to error or unforeseen omission) does not necessarily mean that the screened area is not potentially contaminated or free of any risks.



## Section 5 Natural Hazards



### 5.1 Natural Hazards

Map 5.1 (500m Buffer)

#### Erosion Risk

Category	On the Property?	Within Buffer?
Not identified	-	-

#### Fire Hazard

Category	On the Property?	Within Buffer?
Bush Fire Prone Area (BLA)	Yes	Yes
Fire History	-	Not identified

#### Flood Hazard

Name	On the Property?	Within Buffer?
1 in 100 year flood extent	Yes	Yes



Tower Three, Level 24  
300 Barangaroo Avenue  
Sydney NSW 2000 Australia  
02 8067 8870  
info@liresources.com.au  
[www.liresources.com.au](http://www.liresources.com.au)

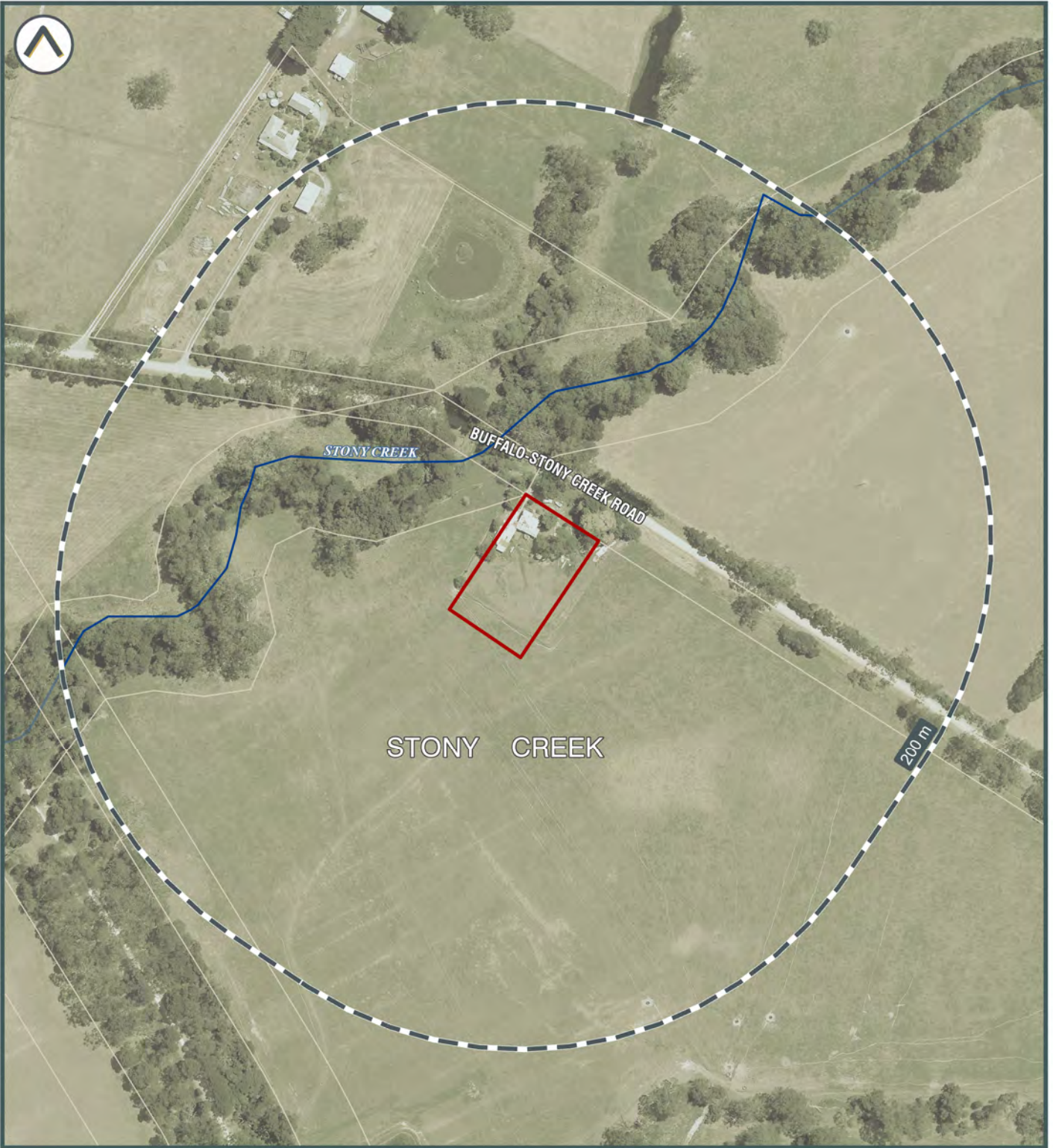


# Appendix A

REPORT MAPS



Subject Area and Sensitive Receptors



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Subject area    <all other values>

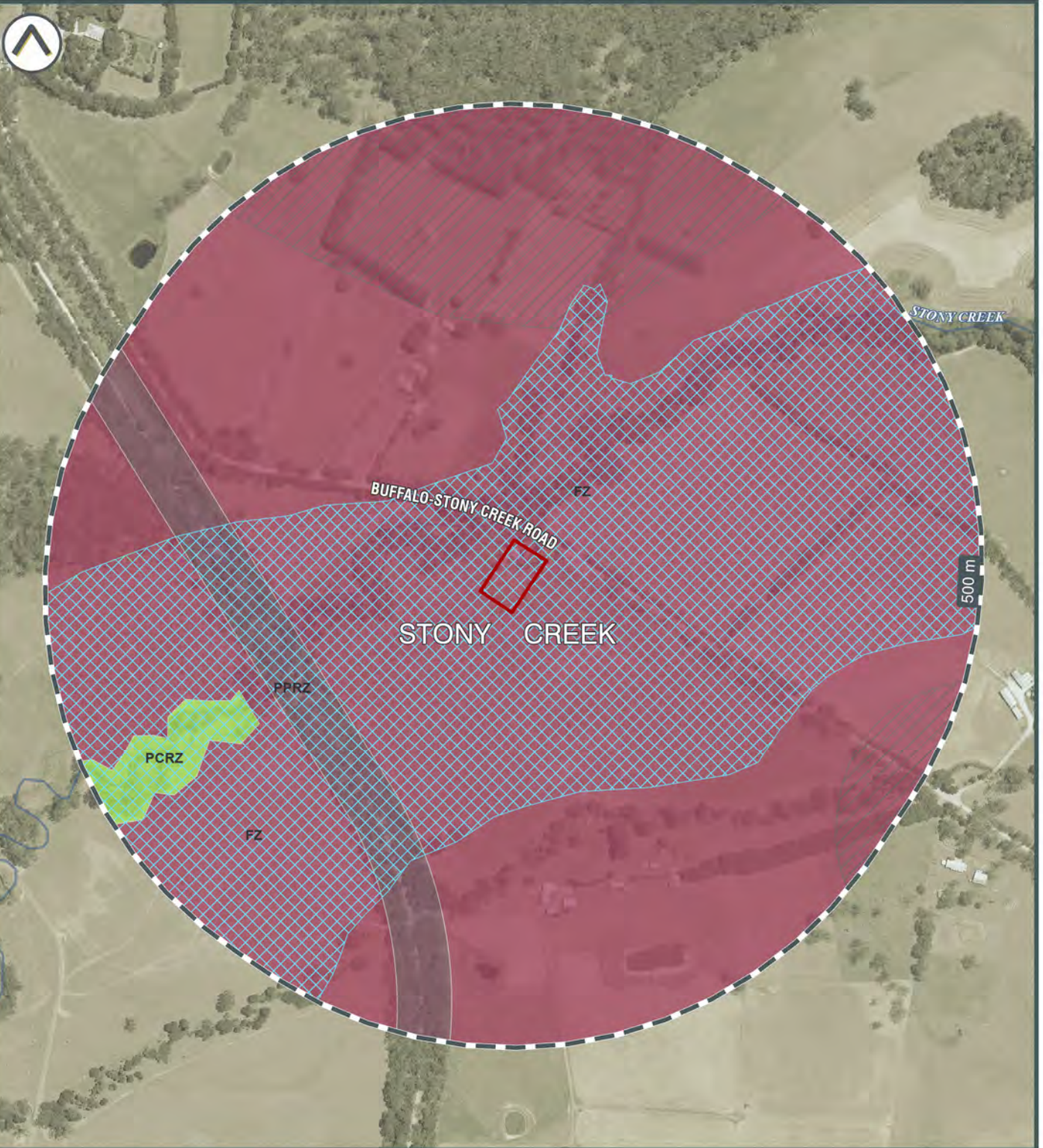


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Planning Controls



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 Subject area	<b>Planning Scheme</b>	<b>Zoning</b>
	 BMO	 FZ   Farming Zone
	 LSIO	 PCRZ   Public Conservation And Resource Zone
		 PPRZ   Public Park And Recreation Zone

