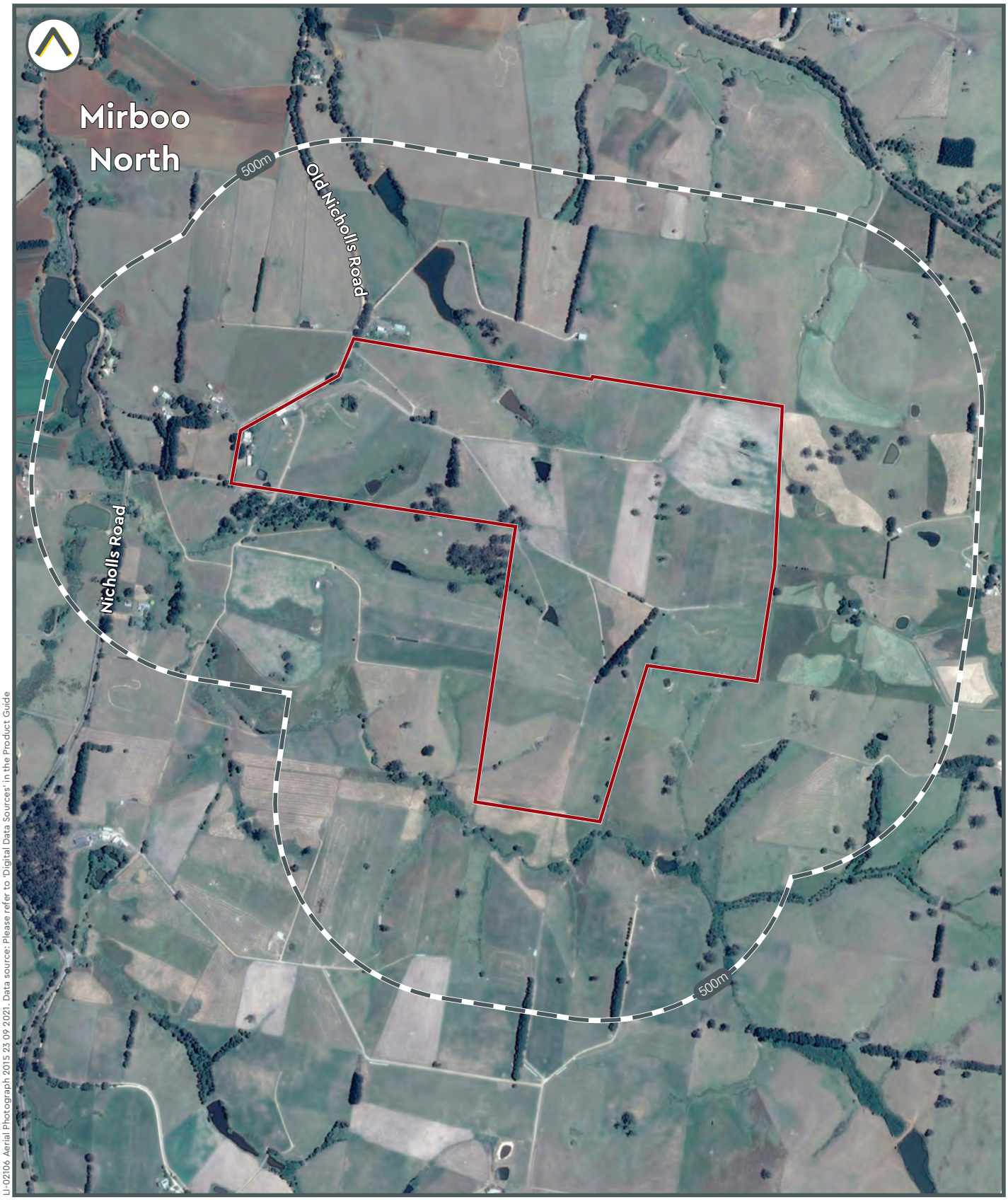
Appendix N

Contaminated land and acid sulfate soils

Part 5

MARINUS LINK

Historic Aerial Photograph - 2015



LI-02106 Aerial Photograph 2015 23 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 400m

Land Insight

IMAGERY INSIGHT

Historic Aerial Photograph - 2019

LI-02106 Aerial Photograph 2009 23 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

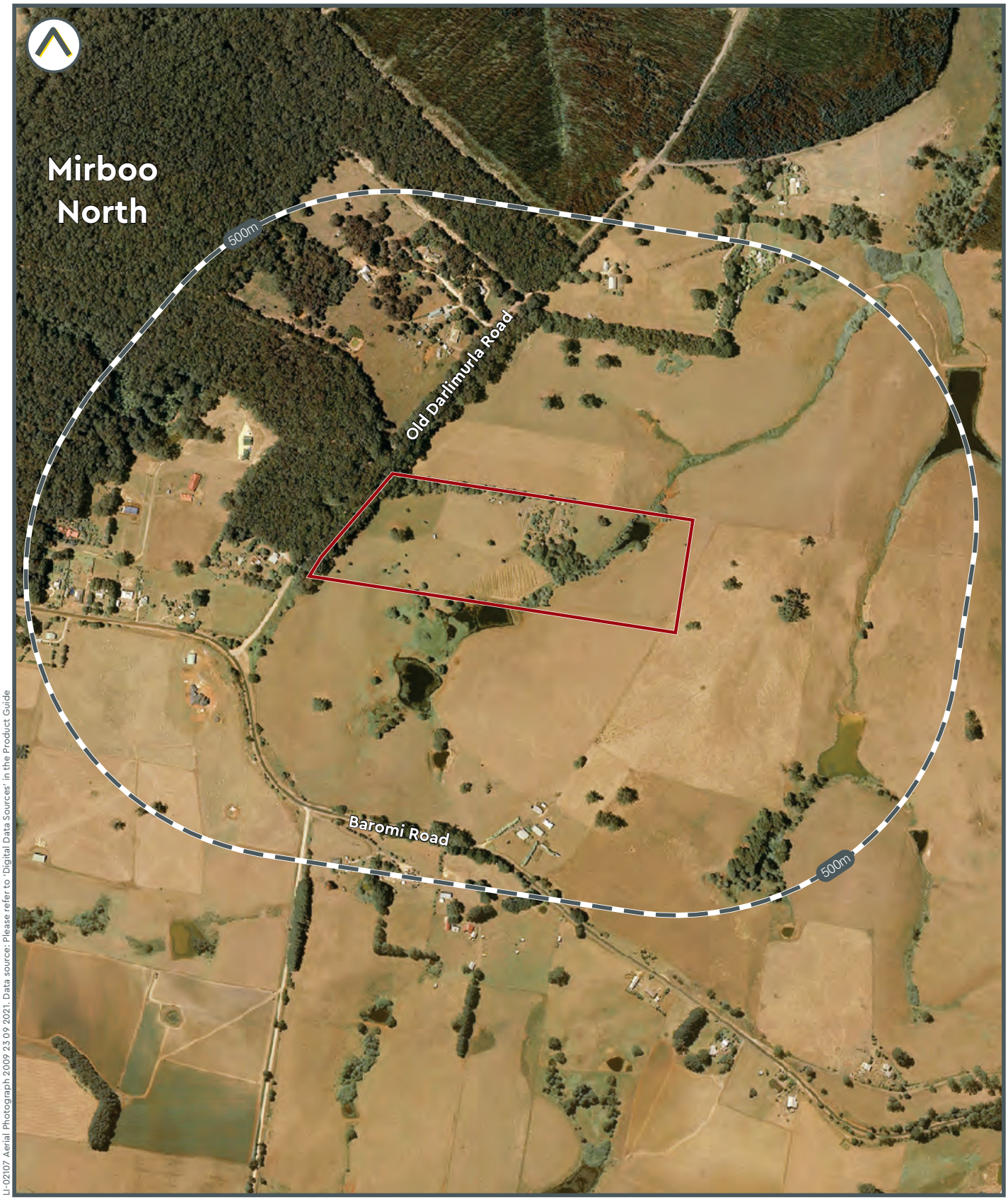
Subject area

0 400m

Land Insight

IMAGERY INSIGHT

Historic Aerial Photograph - 2009



LI-02107 Aerial Photograph 2009 23 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

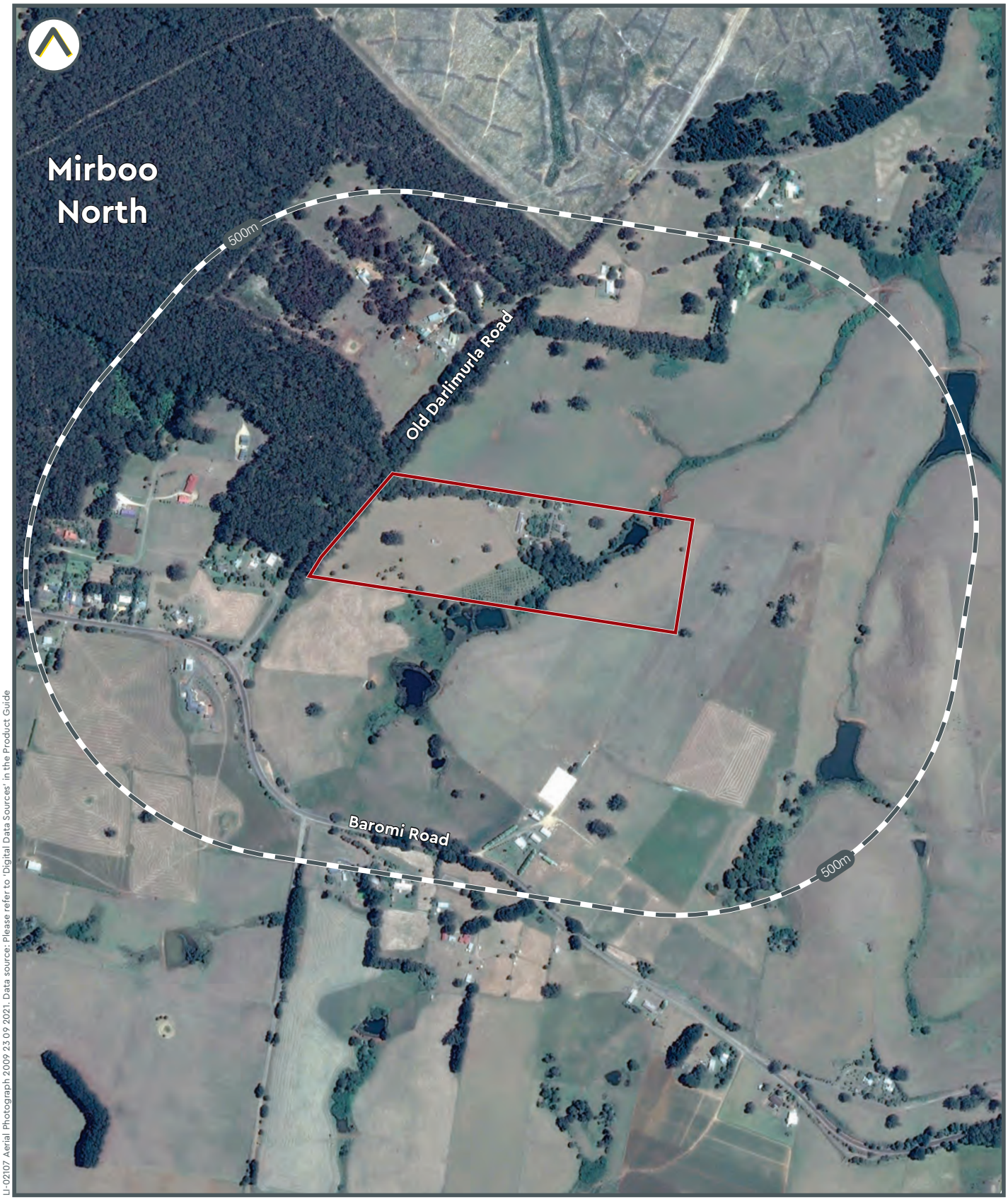
Subject area

0 200m

Land Insight

IMAGERY INSIGHT

Historic Aerial Photograph - 2015



LI-02107 Aerial Photograph 2009 23 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 200m

Land Insight

IMAGERY INSIGHT

Historic Aerial Photograph - 2020

LI-02107 Aerial Photograph 2020 23 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

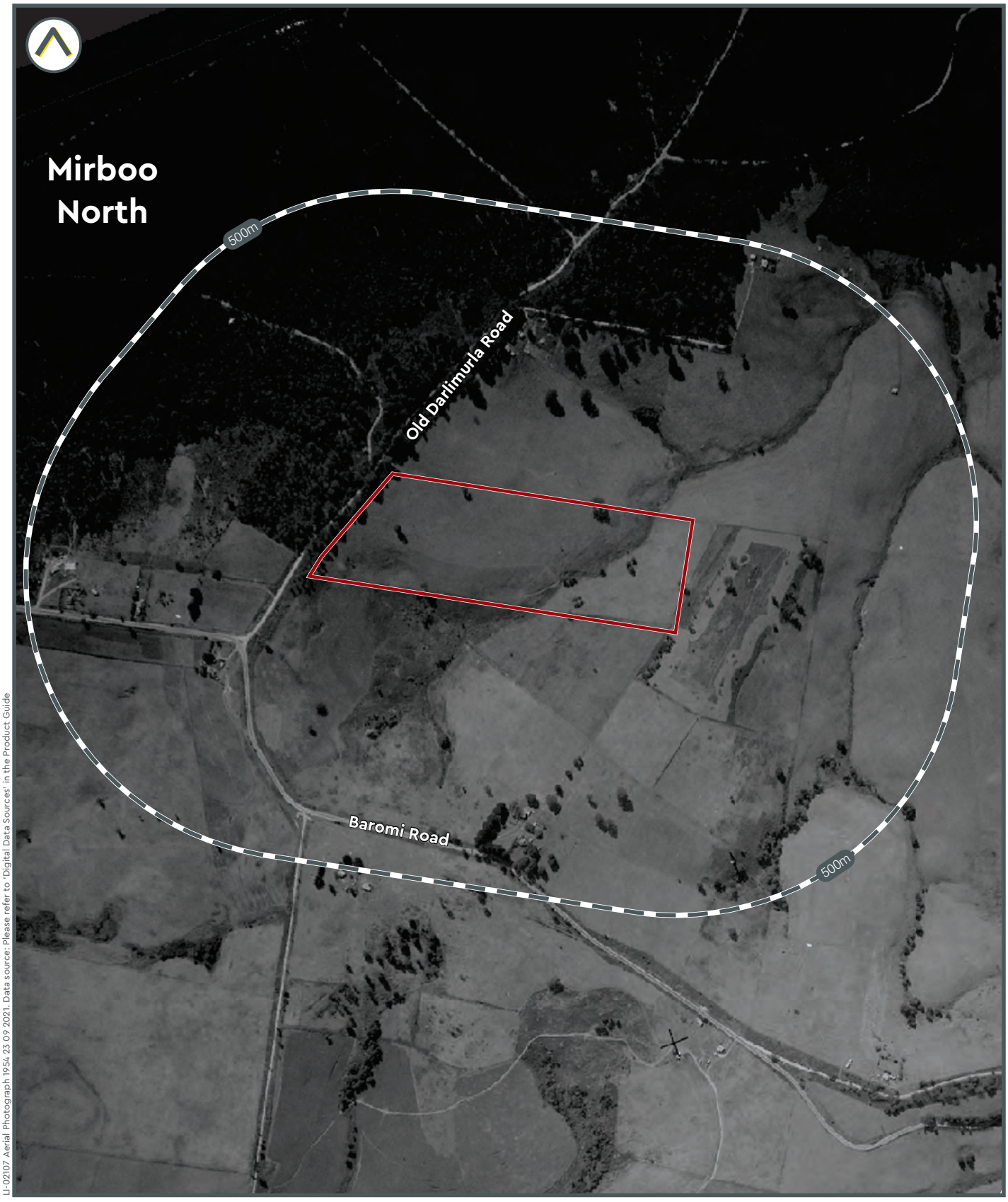
Subject area

0 200m

Land Insight

IMAGERY INSIGHT

Historic Aerial Photograph - 1954



LI-02107 Aerial Photograph 1954 23 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

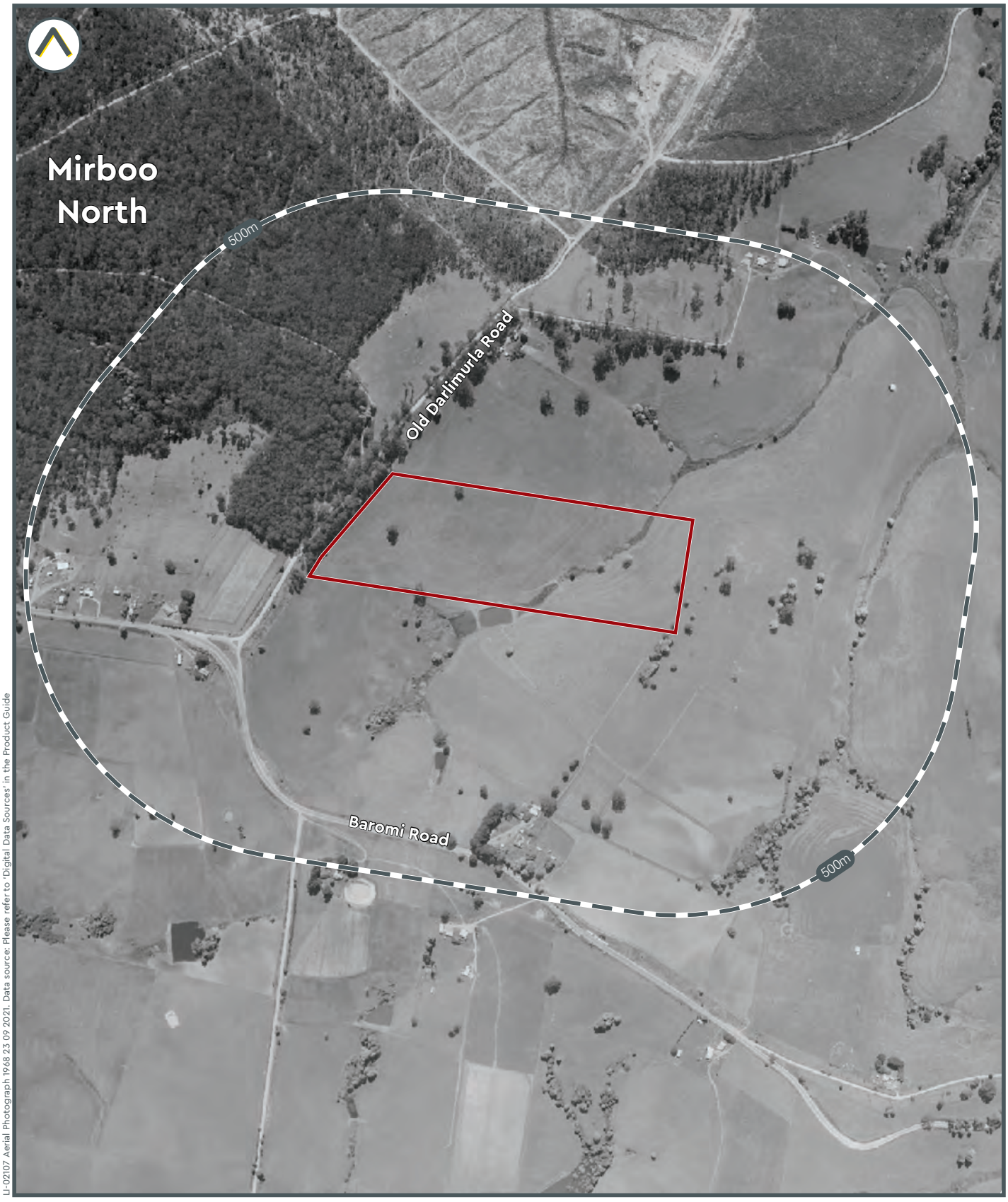
Subject area

0 200m

Land Insight

IMAGERY INSIGHT

Historic Aerial Photograph - 1968



Subject area

0 200m

LI-02107 Aerial Photograph 1968 23 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Land Insight

Historic Aerial Photograph - 1972

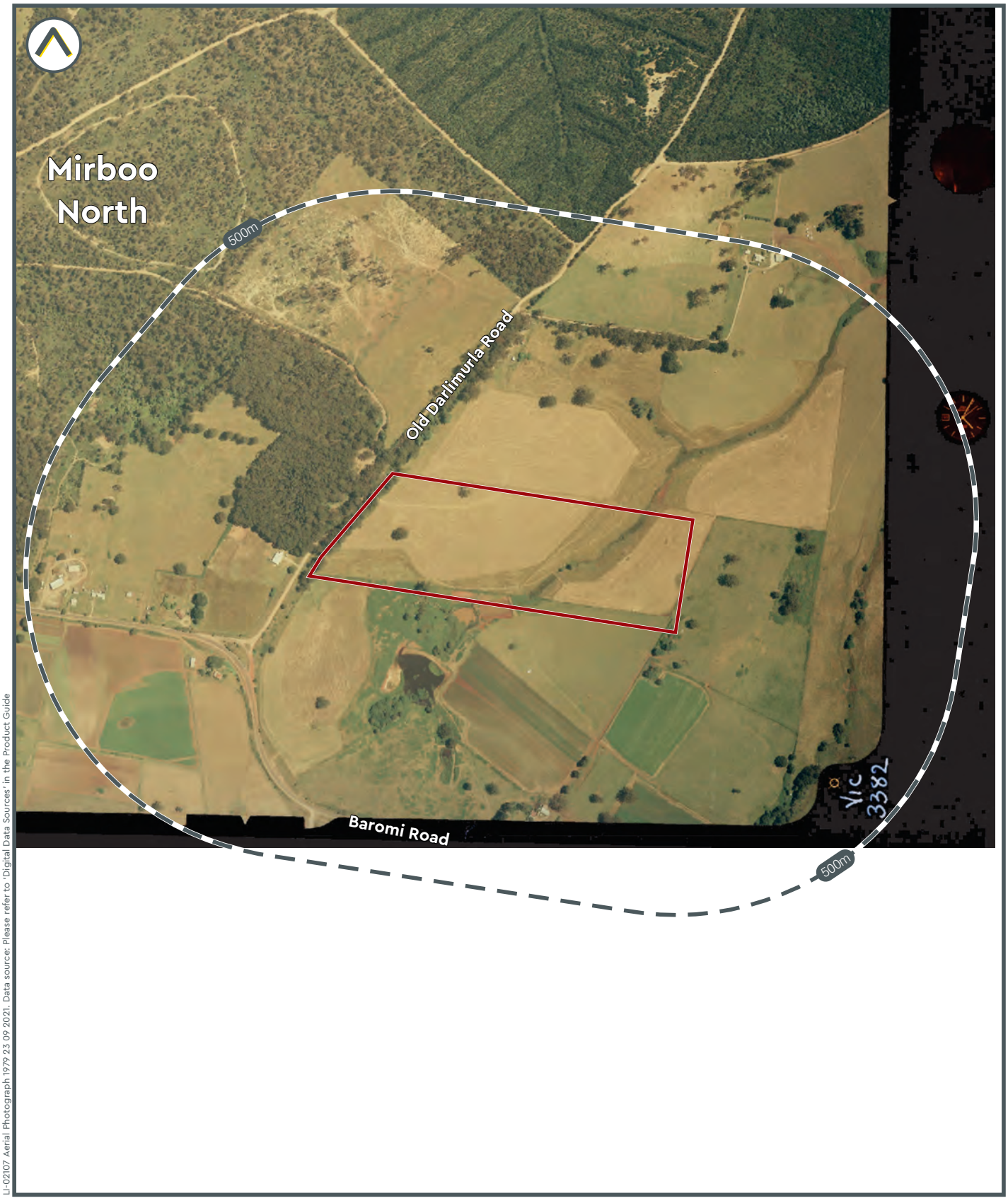
LI-02107 Aerial Photograph 1972 23 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 200m

Land Insight

Historic Aerial Photograph - 1979



LI-02107 Aerial Photograph 1979 23 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

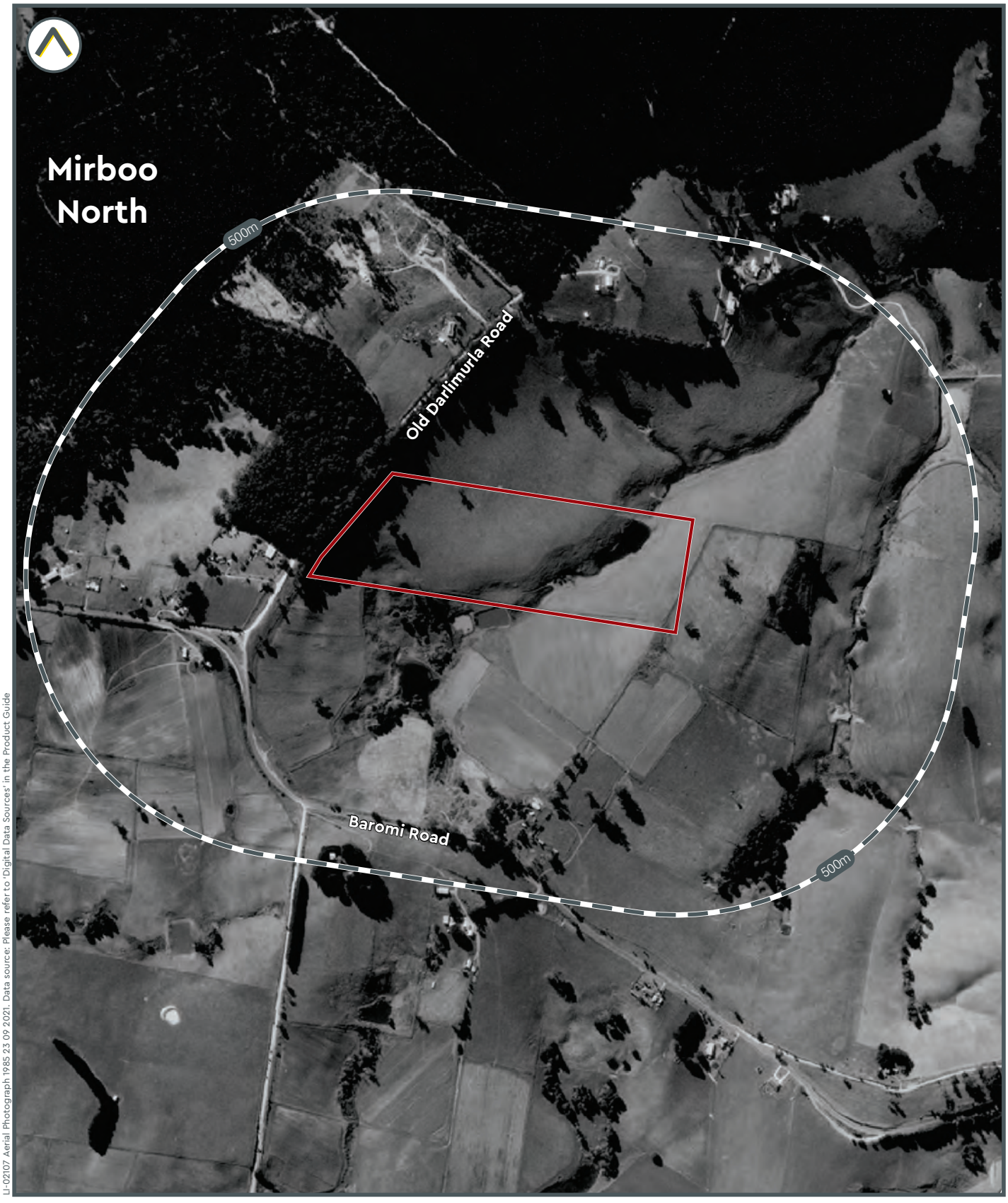
Subject area

0 200m

Land Insight

IMAGERY INSIGHT

Historic Aerial Photograph - 1985



LI-02107 Aerial Photograph 1985 23 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

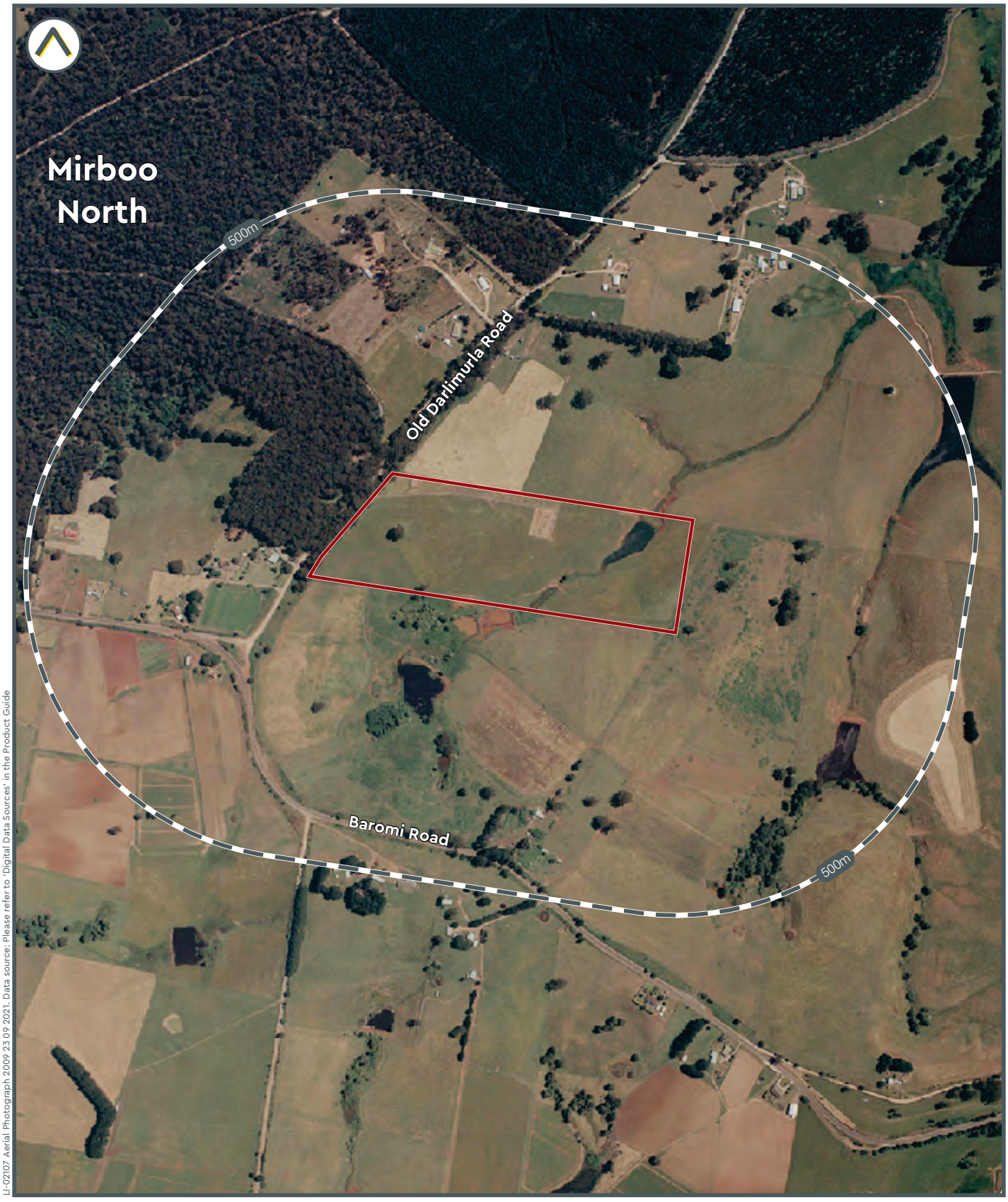
Subject area

0 200m

Land Insight

IMAGERY INSIGHT

Historic Aerial Photograph - 1989



LI-02107 Aerial Photograph 2009 23 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 200m

Land Insight

IMAGERY INSIGHT

Historic Aerial Photograph - 1991

LI-02107 Aerial Photograph 2009 23 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

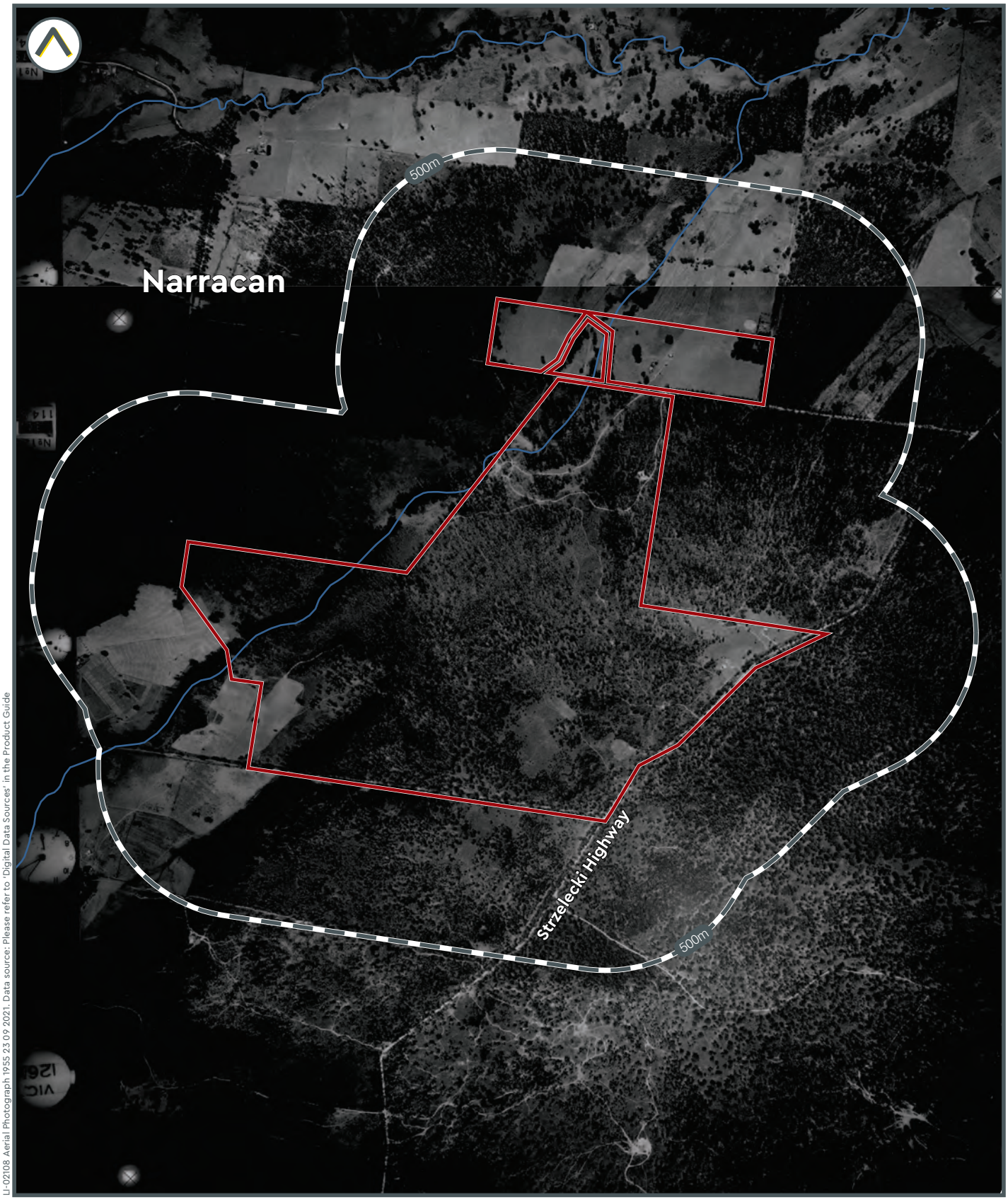
Subject area

0 200m

Land Insight

IMAGERY INSIGHT

Historic Aerial Photograph - 1955

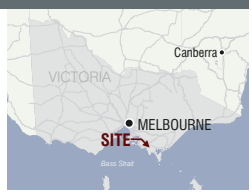


LI-02108 Aerial Photograph 1955 23 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

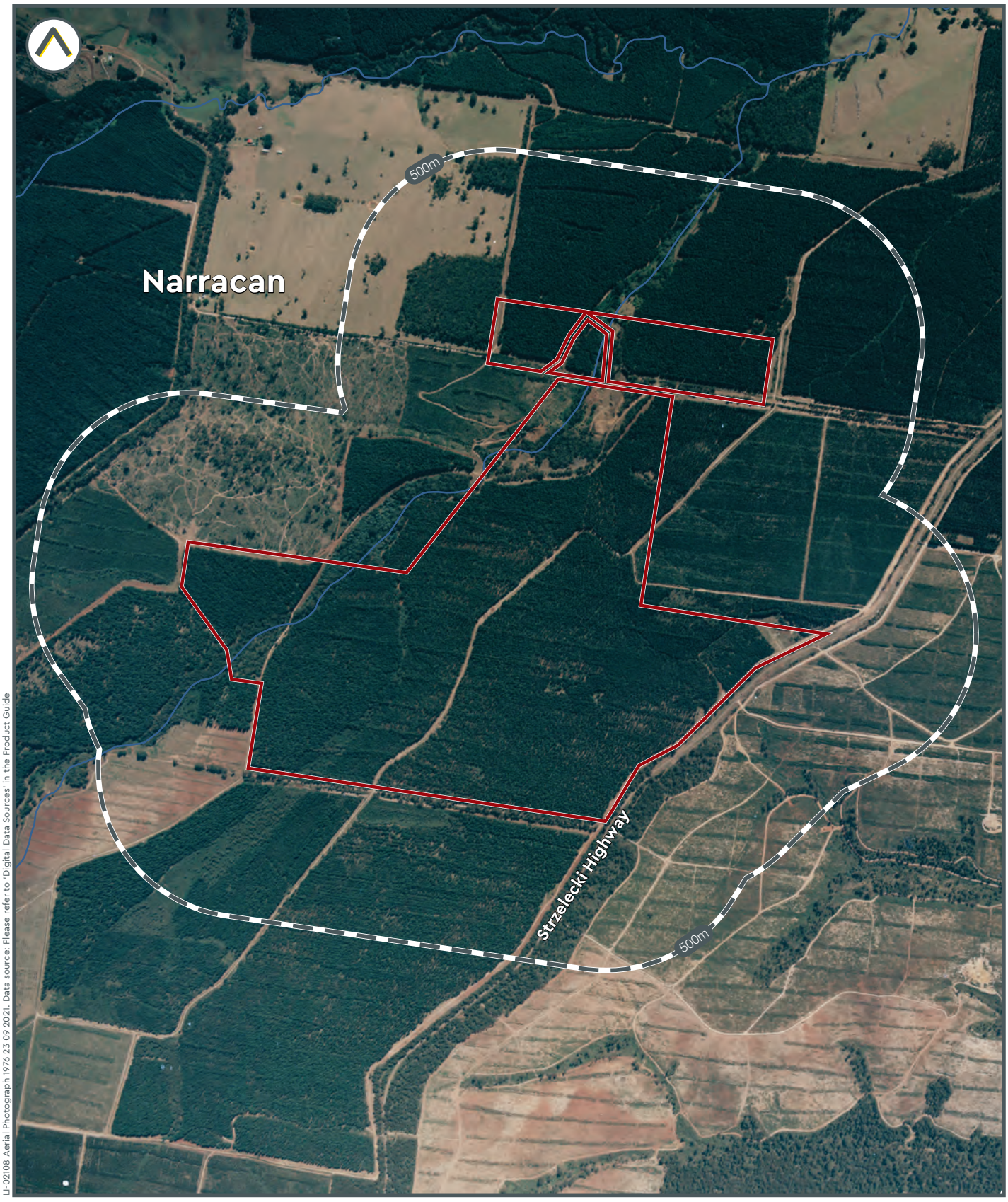
Subject area

0 800m

Land Insight



Historic Aerial Photograph - 1976



LI-02108 Aerial Photograph 1976 23 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

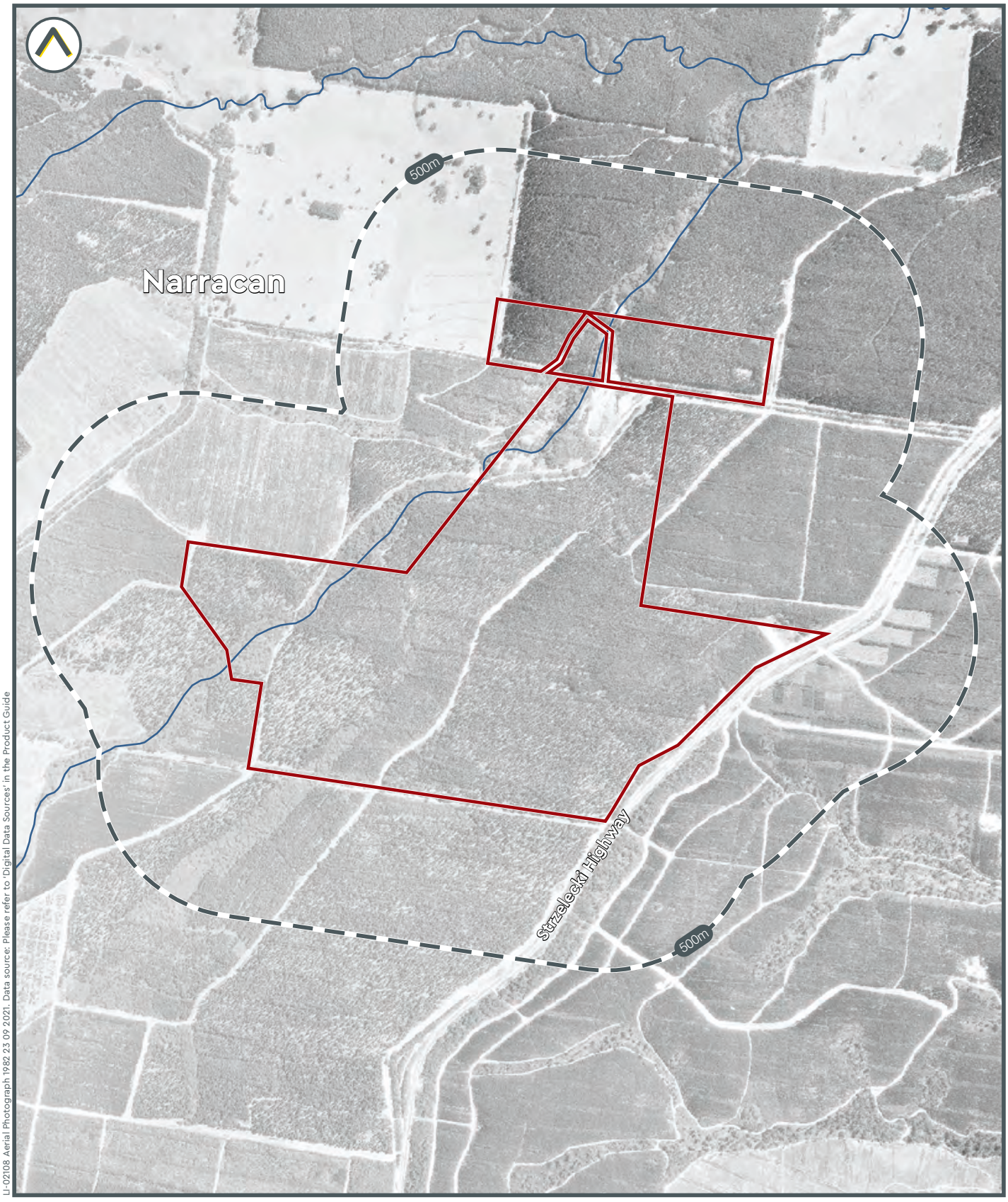
Subject area

0 800m

Land Insight

IMAGERY INSIGHT

Historic Aerial Photograph - 1982



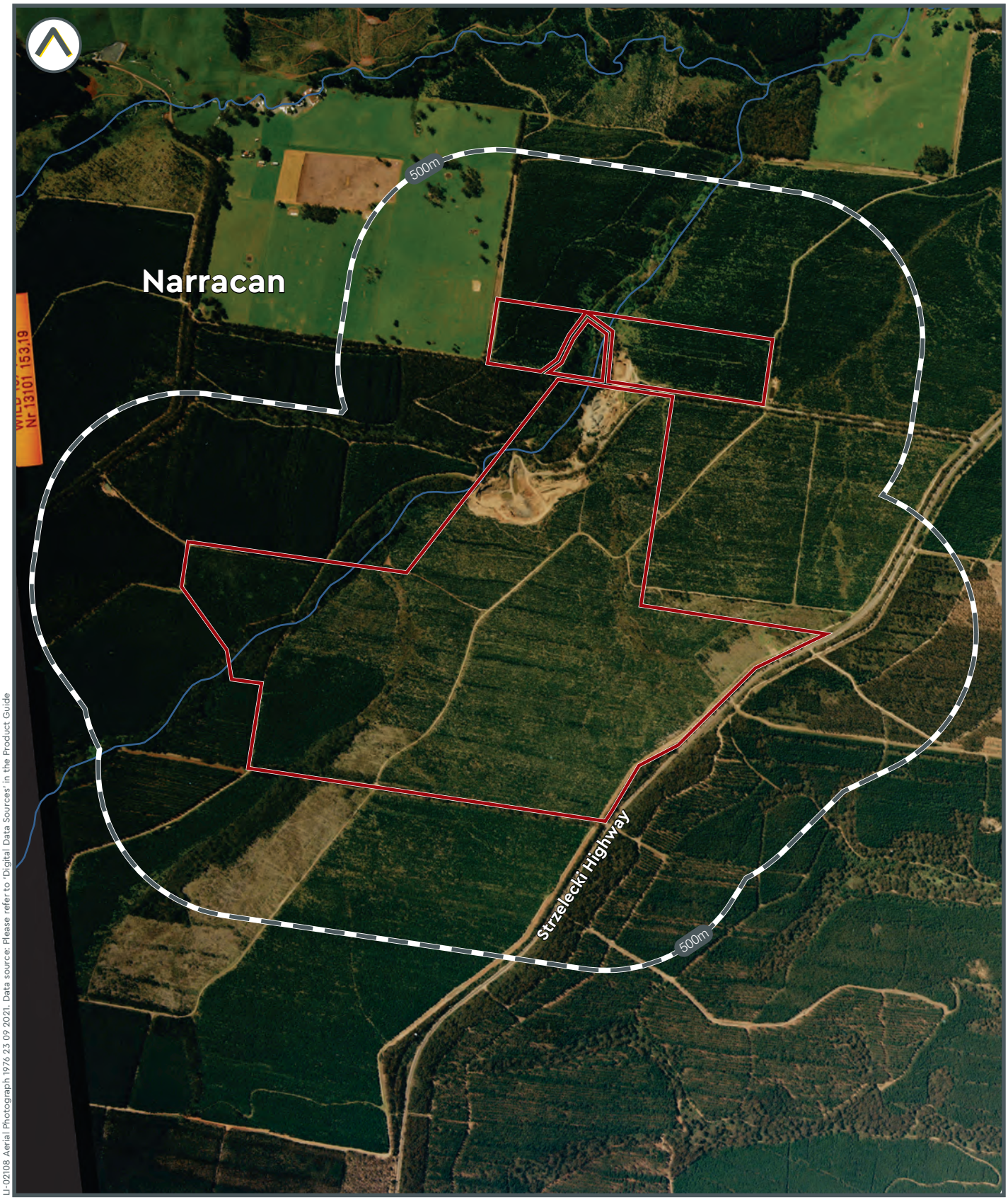
LI-02108 Aerial Photograph 1982 23 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 800m

Land Insight

Historic Aerial Photograph - 1991



LI-02108 Aerial Photograph 1976 23 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

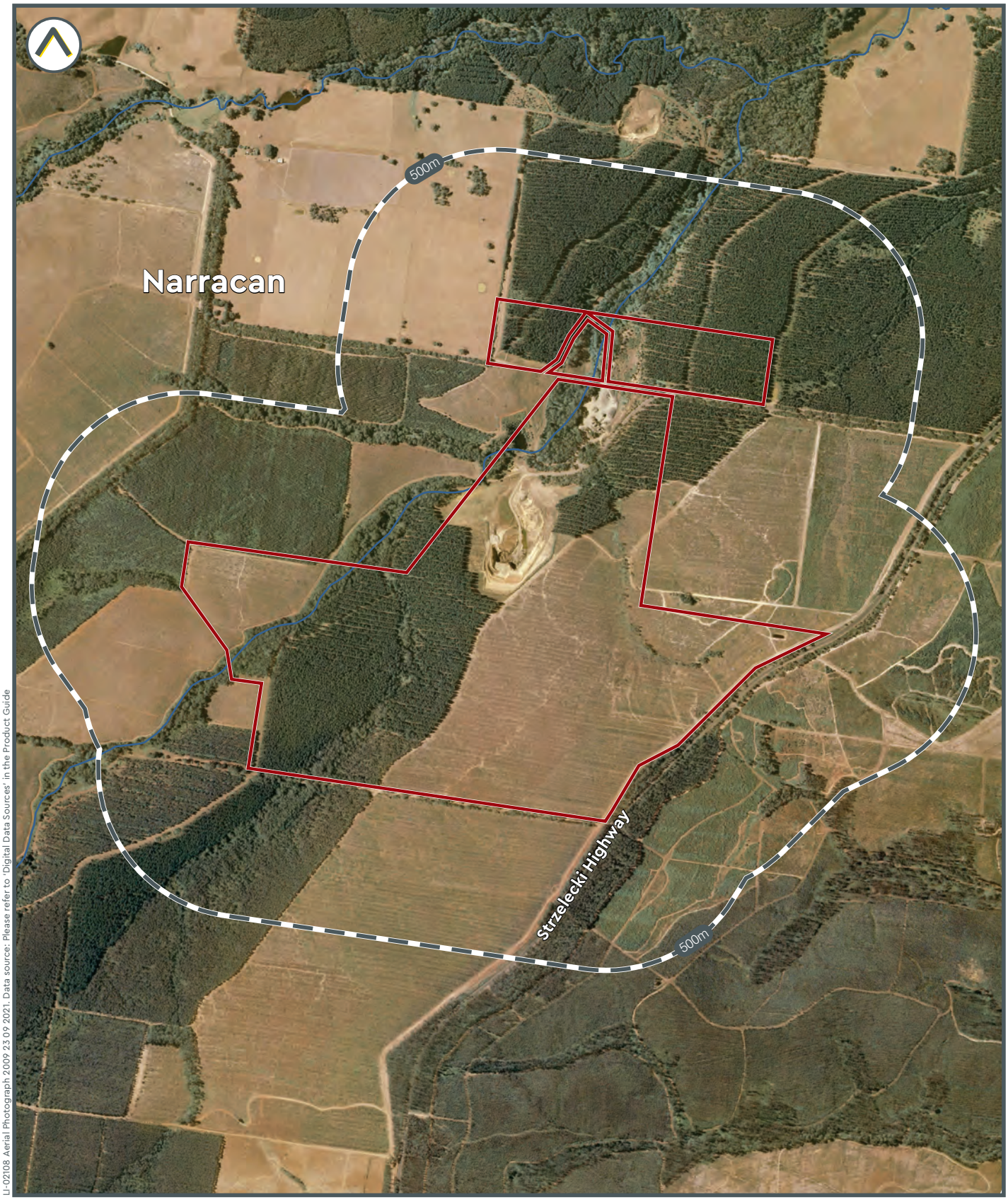
Subject area

0 800m

Land Insight

IMAGERY INSIGHT

Historic Aerial Photograph - 2009



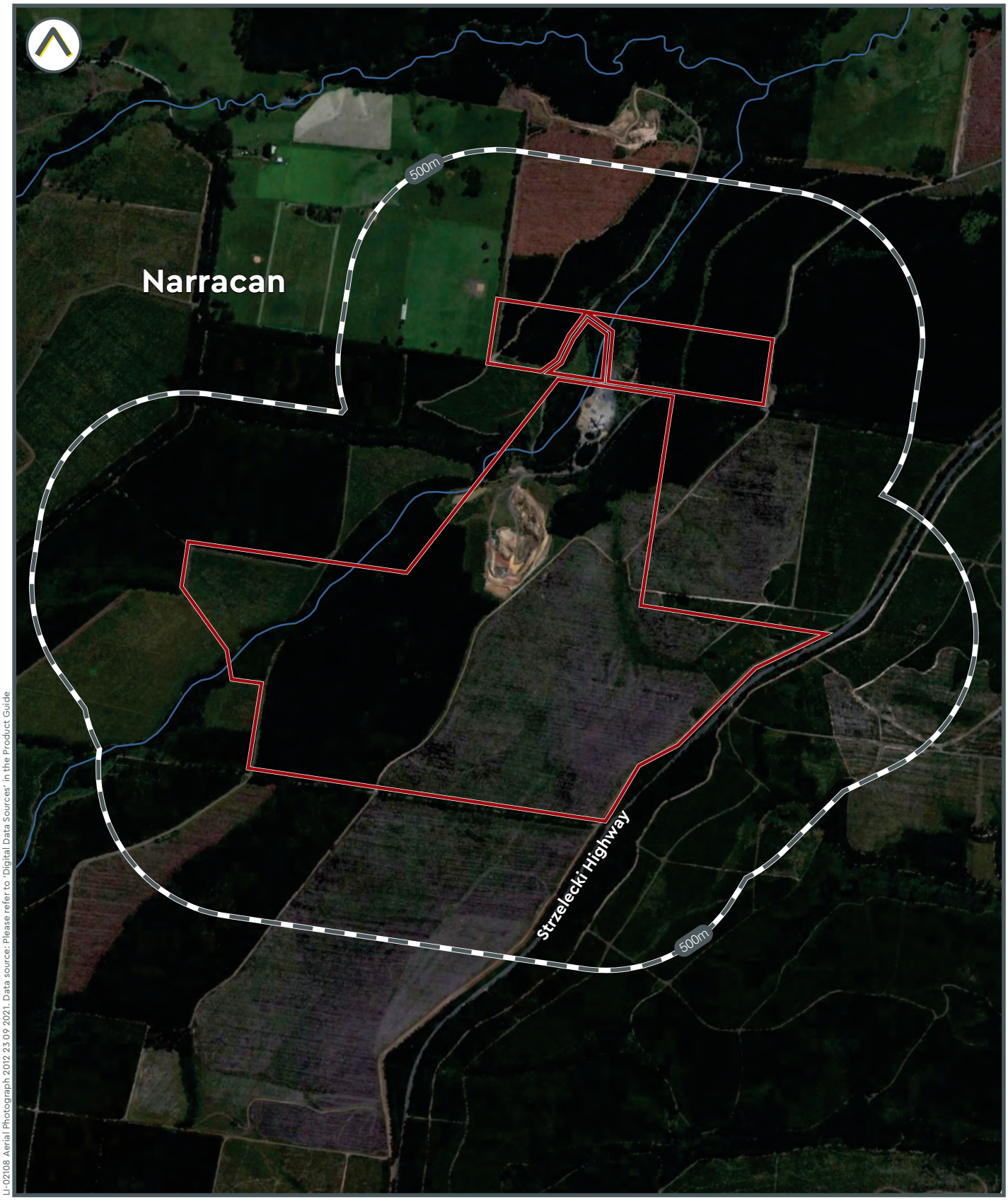
LI-02108 Aerial Photograph 2009 23 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 800m

Land Insight

Historic Aerial Photograph - 2012



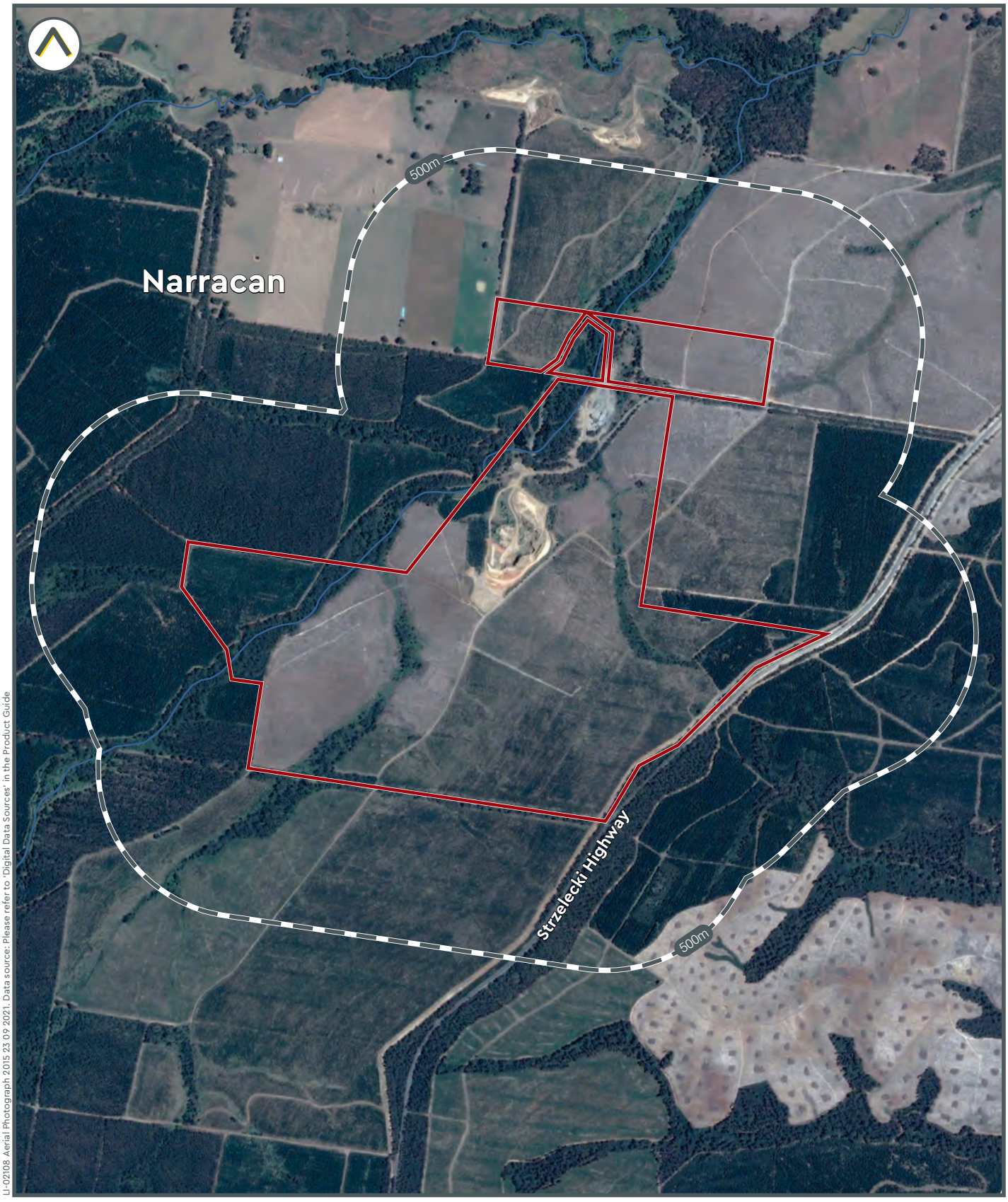
LI-02108 Aerial Photograph 2012 23 09 2021, Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 800m

Land Insight

Historic Aerial Photograph - 2015



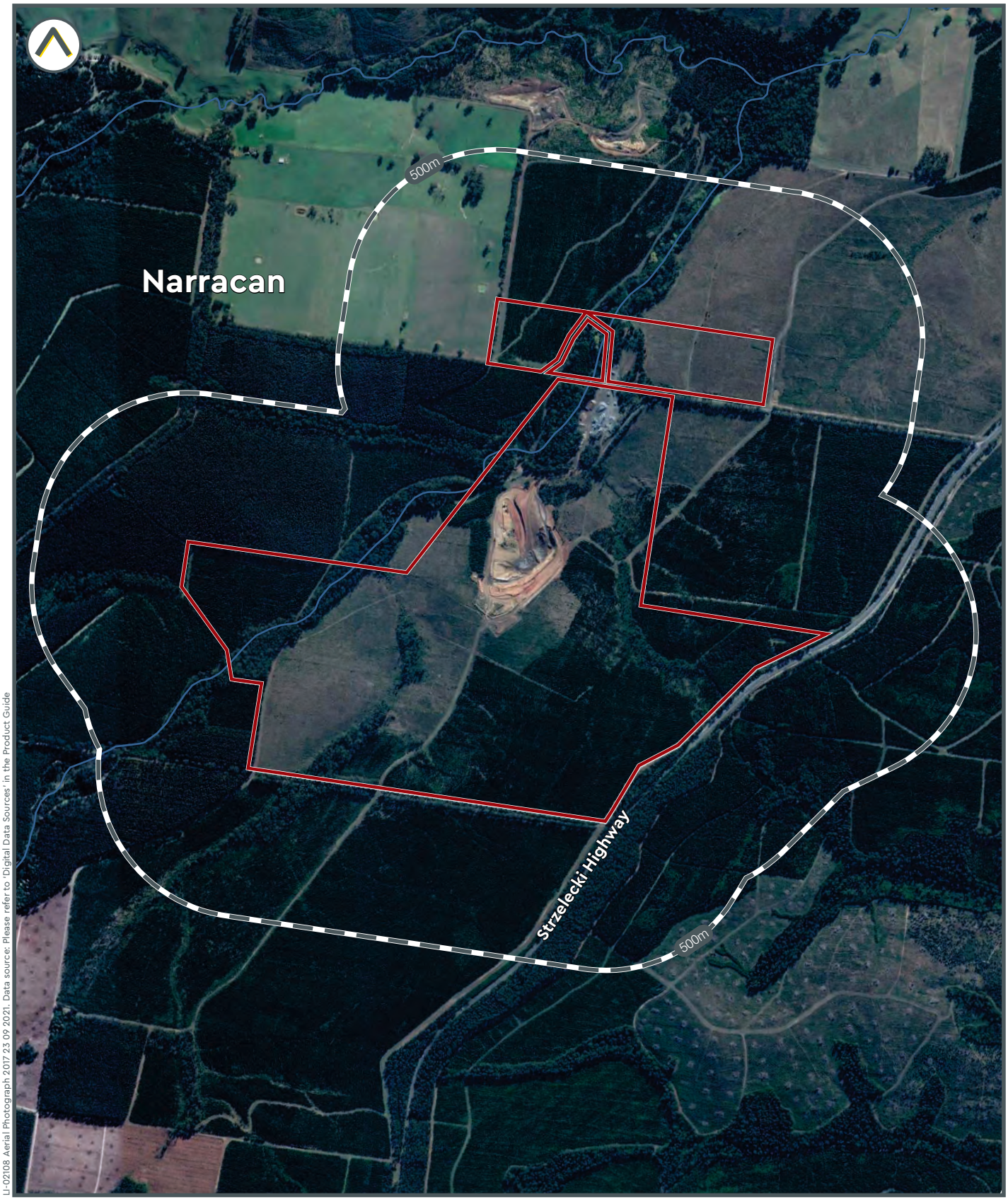
LI-02108 Aerial Photograph 2015 23 09 2021, Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 800m

Land Insight

Historic Aerial Photograph - 2017



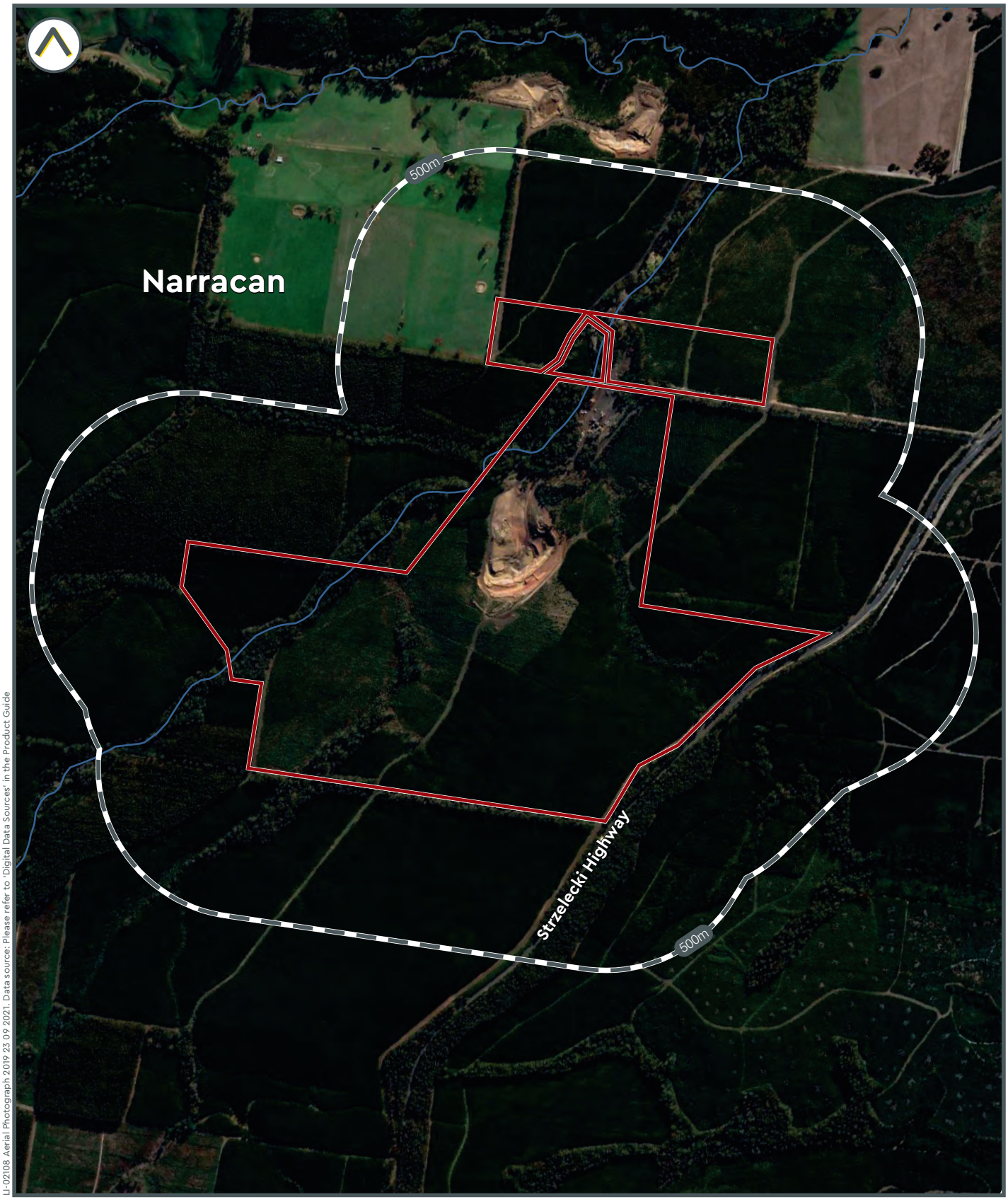
LI-02108 Aerial Photograph 2017 23 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 800m

Land Insight

Historic Aerial Photograph - 2019



LI-02108 Aerial Photograph 2019 23 09 2021, Data source: Please refer to 'Digital Data Sources' in the Product Guide

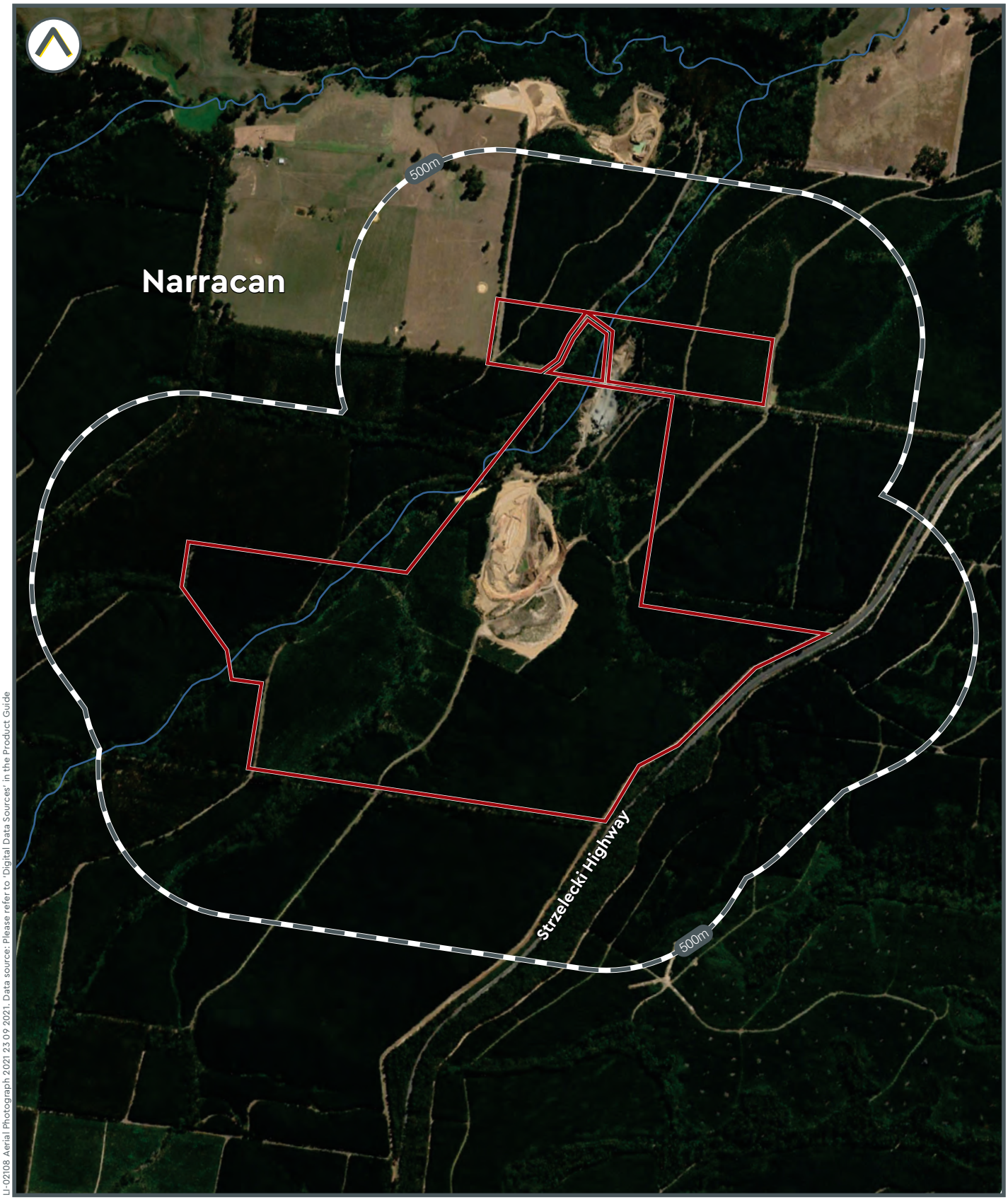
Subject area

0 800m

Land Insight

IMAGERY INSIGHT

Historic Aerial Photograph - 2021



LI-02108 Aerial Photograph 2021 23 09 2021, Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 800m

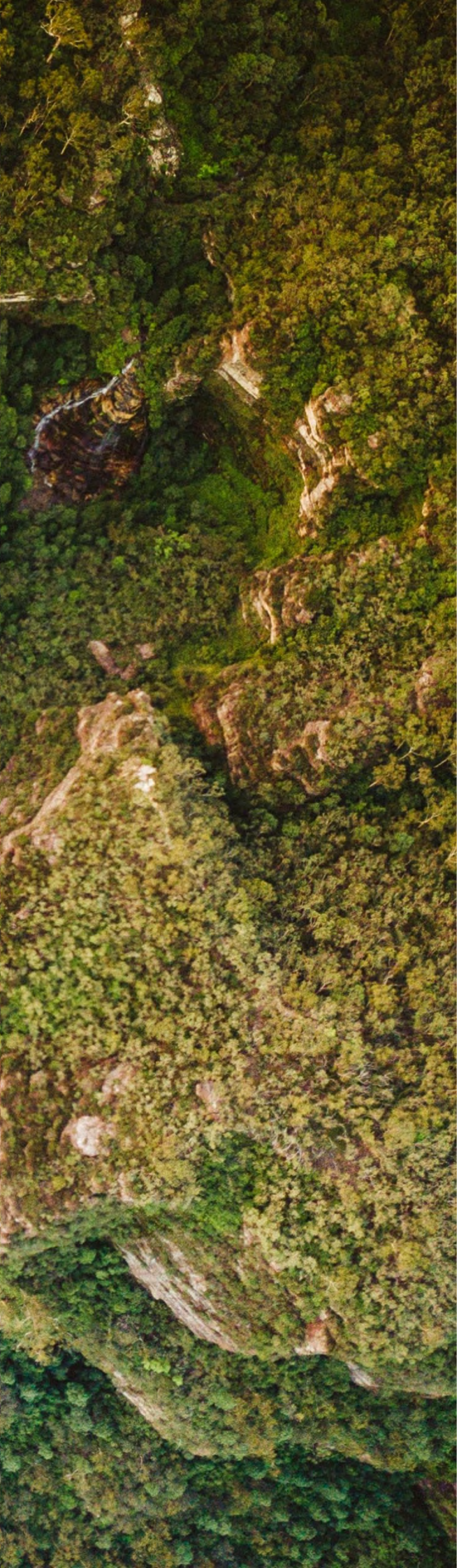
Land Insight

Land Insight

Enviro-Screen

333 Yinnar-Driffield Road
Yinnar, VIC

29 September 2021



Understanding your report

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

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).

Index

SUMMARY

Section 1	**PROPERTY SETTING**	**Identified**
Sensitive Receptors Planning Control Heritage Soil and Land Information Geology and Topography		

Section 2	**HYDROGEOLOGY**	**Identified**
Aquifer Groundwater Bores and Other Borehole investigations Groundwater Dependent Ecosystems (GDE) Hydrogeology Units Wetlands		

Section 3	**ENVIRONMENTAL REGISTERS LICENCES AND INCIDENTS**	**Not Identified**
Contaminated Land Public Register Sites Regulate by Other Jurisdictional Body (Former Gaswork sites / PFAS sites) Licensing and Regulated Sites National Pollutant Inventory (NPI)		

Section 4	**POTENTIALLY CONTAMINATED AREAS**	**Not Identified**
National Liquid Fuel Facilities National Waste Management Facilities		

Section 5	**NATURAL HAZARDS**	**Identified**
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
SUZ1	SPECIAL USE ZONE - SCHEDULE 1	-

Planning Overlay

Type	Category	Details
LSIO	LSIO	LAND SUBJECT TO INUNDATION OVERLAY
BMO	BMO	BUSHFIRE MANAGEMENT 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
5011	-	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	PfQ7-4	f	**Soil Group**	'Duplex soils, Earths'
Description	Plain above flood level (relative relief <9m)			
Soil Landscape	FfQ7-1	f	**Soil Group**	Dark earths
Description	Present flood plain			
Soil Landscape	LfT7-2	f	**Soil Group**	Yellow duplex soils
Description	Low hill (relative relief 30-90m)			

Salinity

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

Radon

Radon Level	Bq/m^3	8

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	
Prospective Land	Land that has the potential to contain Coastal Acid Sulfate Soils as indicated by geomorphology.
Made Land	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 Soils1 (ASRIS) (CSIRO/NatCASS)	
Probability of Occurrence of ASS[1]	
A	**High Probability of occurrence -** (>70% chance of occurrence in mapping unit)
B	**Low Probability of occurrence** - (6-70% chance of occurrence in mapping unit)
C	**Extremely low probability of occurrence** - (1-5% chance of occurrence in mapping unit)
D	**No probability of occurrence** - (<1% chance of occurrence in mapping unit)
x	**Disturbed ASS[1] terrain -** (ASS[1] material present below urban development).
u	**Unclassified** - (Insufficient information to classify map unit)
Zones	
a	Potential acid sulfate soil material and/or Monosulfidic Black Ooze (MBO).
b, c	Potential acid sulfate soil generally within upper 1 m.
c, d, e	ASS[1] generally within upper 1 m.
f	ASS[1] generally below 1 m from the surface
g	ASS[1], generally below 3 m from the surface.
h	ASS[1] generally within 1 m of the surface.
i, j	ASS[1] generally below 1 m of the surface.
k	ASS[1] material and/or Monosulfidic Black Ooze (MBO).
l, m, n, o, p, q	ASS[1] generally within upper 1 m in wet / riparian areas.
Subscripts to codes	
(a)	Actual acid sulfate soil (AASS) = sulfuric material.
(p)	Potential acid sulfate soil (PASS) = sulfidic material.
(q)	Monosulfidic Black Ooze (MBO) is organic ooze enriched by iron monosulfides.
Confidence levels	
(1)	All necessary analytical and morphological data are available
(2)	Analytical data are incomplete but are sufficient to classify the soil with a reasonable degree of confidence
(3)	No necessary analytical data are available, but confidence is fair, based on a knowledge of similar soils in similar environments
(4)	No necessary analytical data are available, and classifier has little knowledge or experience with ASS, hence classification is provisional

[1]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
	Nlh	Haunted Hills Formation (Nlh): generic	Pliocene to Pleistocene (over-bank stream flow - fluvial [environment])	silt [material] (significant); sand (significant); gravel [material] (significant)	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

Naturally Occurring Asbestos Potential (NOA)

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

Topography

Topography	60 – 80 mAHD

Section 2 Hydrogeology

2.1 HYDROGEOLOGY AND GROUNDWATER BORES

Map 2.1 (2000m Buffer)

	On the Property?	Within Buffer?
Aquifer Type	Porous, extensive highly productive aquifers	Porous, extensive highly productive aquifers
Designated Water Supply Catchments	Not identified	Not identified
Depth to Watertable (m)	<5 - 20	<5 - >50
Wetlands	Not identified	Permanent
Groundwater Salinity (mg/L)	1000	500 - 1000

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
53	325221	Unknown	31/12/1920	28.0	28.0				2.7	North
110	325223	Unknown	31/12/1920	25.0	24.7				97.7	South
69	325225	Unknown	13/07/1946	59.0	59.1				111.2	South-west
130	308243	Unknown	12/05/1949	37.0	36.6				113.0	South

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
97	325235	Unknown	22/06/1956	42.0	41.8				153.8	South
56	325315	Unknown	23/08/1980	193.0	193.0				179.6	North
144	308281	Unknown	1/06/1949	31.0	31.4				269.4	South-east
55	325246	Unknown	30/11/1965	9.0	9.1				287.1	North
54	325264	Unknown	28/06/1967	3.0	3.0				296.9	North
70	325247	Unknown	30/11/1965	9.0	9.1				314.3	North
79	325248	Unknown	30/11/1965	9.0	9.1				353.9	North
65	325222	Unknown	31/12/1920	18.0	18.3				388.0	West
93	325249	Unknown	30/11/1965	10.0	9.8				395.8	North
80	325437	Unknown	5/03/1982	20.0	20.0				407.1	North
108	325250	Unknown	30/11/1965	16.0	16.2				425.6	North
142	308905	Unknown	23/04/1964	68.0	68.3				435.9	North-east
71	325317	Unknown	10/09/1980	201.0	201.0				452.9	North
58	325314	Unknown	3/10/1980	80.0	80.0				456.1	North
156	308006	Unknown	18/06/1946	106.0	106.1				460.2	East
127	325251	Unknown	30/11/1965	14.0	13.7				467.5	North
59	325234	Unknown	15/06/1956	18.0	17.7				495.4	West
160	308234	Unknown	2/05/1949	53.0	53.3				533.7	East
143	308975	Unknown	30/11/1965	9.0	9.1				535.9	North-east
47	325355	Unknown	30/01/1981	63.0	63.0				536.5	North
153	308246	Unknown	18/05/1949	51	51.2				550.6	East
31	325348	Unknown	17/12/1980	194	194				558.1	West
94	325438	Unknown	12/03/1982	21	20.6				558.4	North
45	325316	Unknown	25/09/1980	208	208				559.0	North
42	325341	Unknown	24/11/1980	68	68				570.4	North-west
154	308908	Unknown	30/04/1964	65	64.6				574.5	North-east
35	325321	Unknown	28/08/1980	129	129				590.9	North-west
41	325333	Unknown	6/11/1980	208	208				641.7	North-west
91	325436	Unknown	2/03/1982	20	20				710.9	North
159	308976	Unknown	30/11/1965	14	14.3				715.2	North-east
168	308289	Unknown	31/05/1949	26	25.9				748.9	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
36	325320	Unknown	20/08/1980	57	57				761.8	North-west
52	325318	Unknown	27/08/1981	62	61.5				772.4	North
27	325369	Unknown	11/04/1981	74	73.9				791.0	West
114	325434	Unknown	18/02/1982	10	10				801.8	North
60	325253	Unknown	30/11/1965	9	9.1				806.7	North
145	308903	Unknown	1/04/1964	76	75.6				807.7	North-east
50	325442	Unknown	19/06/1982	81	81.3				817.3	North
46	325252	Unknown	30/11/1965	9	9.1				837.6	North
182	308278	Unknown	25/05/1949	21	20.7				855.4	East
63	325311	Unknown	29/07/1980	233	233.3				856.3	North
72	325254	Unknown	30/11/1965	9	9.1				857.6	North
181	308244	Unknown	10/05/1949	82	82.3				870.1	East
38	325389	Unknown	9/06/1981	78	78.2				871.1	North-west
166	308981	Unknown	30/11/1965	14	14				880.9	North-east
83	325255	Unknown	30/11/1965	18	17.7				881.3	North
147	308566	Unknown	11/09/1963	201	201.2				889.4	South-east
163	309034	Unknown	29/06/1967	3	3				890.8	South-east
157	308906	Unknown	4/05/1964	50	49.7				892.4	North-east
184	308236	Unknown	29/04/1949	76	76.2				902.3	East
136	308978	Unknown	30/11/1965	13	13.4				904.1	North
149	308979	Unknown	30/11/1965	9	9.1				906.3	North-east
158	308980	Unknown	30/11/1965	9	9.1				912.9	North-east
30	325368	Unknown	6/05/1981	96	96.5				913.1	North-west
176	308911	Unknown	20/05/1964	104	103.9				922.6	East
96	325256	Unknown	30/11/1965	12	12.2				930.0	North
102	325257	Unknown	8/11/1965	9	9.4				938.5	North
126	308977	Unknown	30/11/1965	13	12.8				942.4	North
120	325262	Unknown	30/11/1965	11	11.3				948.9	North
113	325258	Unknown	9/11/1965	10	10.4				967.4	North
64	325263	Unknown	28/06/1967	3	3				968.0	North

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
170	308982	Unknown	30/11/1965	9	9.1				968.2	South-east
177	308247	Unknown	16/05/1949	91	91.4				968.3	East
40	325319	Unknown	1/10/1980	160	160				977.5	North-west
185	308272	Unknown	17/05/1949	20	19.8				979.0	East
95	325435	Unknown	1/03/1982	20	20				993.6	North
171	308907	Unknown	8/05/1964	56	55.5				1004.6	North-east
189	309033	Unknown	29/06/1967	3	3				1053.3	East
51	325224	Unknown	12/11/1946	25	24.7				1055.3	South-west
117	334578	Unknown	13/11/1963	157	157				1057.2	South
12	325397	Unknown	19/08/1981	60	59.8				1067.0	West
18	84264	Unknown	3/08/1959	0	0				1075.0	South-west
167	308983	Unknown	30/11/1965	9	9.1				1078.6	South-east
194	308274	Unknown	23/05/1949	23	22.6				1096.9	East
118	325419	Unknown	30/11/1981	38	37.5				1097.8	North
187	308231	Unknown	13/04/1949	61	61				1098.5	North-east
179	308985	Unknown	30/11/1965	9	9.1				1100.1	East
119	325420	Unknown	3/12/1981	20	19.5				1100.1	North
34	325367	Unknown	23/04/1981	98	97.5				1106.0	North-west
13	325326	Unknown	9/09/1980	135	134.7				1108.9	West
73	325226	Unknown	12/02/1946	32	31.7				1133.5	North
180	308577	Unknown	30/04/1957	57	57.3				1139.4	North-east
68	325312	Unknown	16/02/1981	44	44				1142.6	North
109	325245	Unknown	21/04/1964	87	86.9				1153.0	North
125	309303	Unknown	4/02/1982	29	29				1156.6	North
195	308271	Unknown	26/05/1949	17	16.8				1159.1	East
135	308912	Unknown	16/04/1964	97	97.2				1175.7	North
17	325332	Unknown	23/10/1980	251	251				1176.9	North-west
39	325313	Unknown	20/08/1980	227	226.6				1191.2	North
99	325407	Unknown	25/11/1981	15	15				1192.3	North
150	308902	Unknown	19/03/1964	71	71.3				1201.8	North

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
190	308258	Unknown	19/05/1949	30	30.5				1207.3	East
78	325422	Unknown	3/12/1981	10	10				1208.5	North
140	334550	Unknown	1/08/1946	167	167				1216.9	South
84	325423	Unknown	4/12/1981	10	10				1219.2	North
186	308915	Unknown	27/05/1964	58	57.6				1223.2	North-east
204	308579	Unknown	14/08/1956	188	187.8				1228.1	East
141	WRK987433	Stock and Domestic	15/10/2008	48	48				1236.2	South
90	325424	Unknown	8/12/1981	12	12				1244.2	North
169	308984	Unknown	30/11/1965	9	9.1				1245.3	South-east
200	308264	Unknown	16/05/1949	35	34.7				1259.4	East
161	308904	Unknown	7/04/1964	85	85.3				1261.9	North-east
105	325430	Unknown	18/01/1982	25	25				1270.5	North
211	308242	Unknown	18/05/1949	84	83.8				1294.7	East
146	309322	Unknown	14/05/1982	13	13				1295.7	North
191	308230	Unknown	1/04/1949	34	33.5				1297.8	North-east
209	309032	Unknown	29/06/1967	3	3				1298.8	East
210	308889	Unknown	4/09/1961	129	128.6				1300.6	East
77	325400	Unknown	1/12/1981	10	10				1305.9	North
19	325399	Unknown	11/09/1981	57	56.6				1309.2	North-west
86	325425	Unknown	9/12/1981	15	15				1318.9	North
20	325331	Unknown	3/10/1980	142	142.5				1324.2	North-west
131	309302	Unknown	28/01/1982	37	37				1325.4	North
172	308005	Unknown	18/04/1946	35	34.7				1328.0	North-east
89	325408	Unknown	16/11/1981	10	10				1341.6	North
129	309317	Unknown	24/05/1982	20	20				1345.5	North
33	325219	Unknown	31/12/1920	5	4.9				1346.7	South-west
188	308986	Unknown	30/11/1965	9	9.1				1347.6	South-east
212	308270	Unknown	25/05/1949	24	24.4				1347.8	East
29	325440	Unknown	21/05/1982	98	97.8				1348.7	North-west
199	308581	Unknown	11/05/1964	354	353.9				1350.8	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
116	325405	Unknown	20/11/1981	14	14				1358.5	North
201	308259	Unknown	25/05/1949	29	29				1359.1	East
24	325220	Unknown	31/12/1920	30	30.5				1369.5	North-west
178	308909	Unknown	5/05/1964	172	171.6				1391.7	North-east
103	325406	Unknown	18/11/1981	15	15				1395.5	North
100	334579	Unknown	26/09/1963	282	281.9				1396.3	South
76	325426	Unknown	10/12/1981	10	10				1403.3	North
85	325427	Unknown	15/12/1981	10	10				1416.2	North
134	309325	Unknown	22/06/1982	19	19				1426.6	North
214	308232	Unknown	20/04/1949	90	89.6				1427.8	East
183	308298	Unknown	4/05/1949	49	49.4				1432.5	North-east
124	325429	Unknown	12/01/1982	17	17				1436.7	North
165	334615	Unknown	30/11/1965	9	9.1				1438.4	South-east
205	308257	Unknown	19/05/1949	20	19.8				1459.4	North-east
112	325428	Unknown	6/01/1982	18	18				1464.0	North
75	325401	Unknown	12/11/1981	11	11				1490.9	North
220	308583	Unknown	24/10/1956	224	224				1493.3	East
173	308913	Unknown	4/05/1964	36	36				1518.1	North-east
4	325347	Unknown	5/12/1980	30	30				1522.1	West
62	325230	Unknown	22/06/1956	40	39.6				1525.7	North
221	308269	Unknown	26/05/1949	21	21.3				1528.7	East
81	325231	Unknown	27/02/1957	50	50.3				1531.5	North
82	325309	Unknown	5/03/1973	31	30.8				1531.5	North
138	309301	Unknown	17/12/1981	47	47				1535.4	North
88	325421	Unknown	3/12/1981	10	10				1536.3	North
215	308260	Unknown	12/05/1949	32	32				1537.6	North-east
137	309320	Unknown	24/05/1982	20	20				1538.3	North
152	309321	Unknown	3/05/1982	16	16				1539.0	North
5	325349	Unknown	18/12/1980	226	226				1543.7	North-west
193	308297	Unknown	6/12/1948	53	53				1550.9	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
192	308299	Unknown	6/05/1949	44	43.9				1557.0	North-east
101	325232	Unknown	5/07/1956	50	50.3				1561.7	North
115	325433	Unknown	16/02/1982	15	15				1570.4	North
128	325233	Unknown	3/07/1956	47	47.2				1574.6	North
207	308288	Unknown	18/05/1949	12	12.2				1579.9	North-east
44	325242	Unknown	4/03/1964	102	101.8				1583.6	North
107	325432	Unknown	16/02/1982	10	10				1586.7	North
74	325431	Unknown	2/02/1982	10	10				1598.0	North
155	308574	Unknown	26/04/1957	77	77.1				1605.1	North
222	308263	Unknown	20/05/1949	21	21.3				1607.9	East
202	308987	Unknown	30/11/1965	9	9.1				1608.4	South-east
174	308917	Unknown	15/05/1964	30	30.5				1611.8	North-east
164	334616	Unknown	30/11/1965	9	9.1				1633.0	South-east
217	308229	Unknown	30/03/1949	94	94.5				1637.3	East
203	308910	Unknown	21/05/1964	65	64.6				1639.2	North-east
123	325404	Unknown	1/12/1981	15	15				1648.7	North
14	325334	Unknown	13/11/1980	100	100.5				1659.7	North-west
25	325377	Unknown	15/04/1981	20	20.2				1660.3	South-west
21	325376	Unknown	3/04/1981	26	25.6				1661.5	South-west
28	325381	Unknown	15/04/1981	22	21.9				1662.1	South-west
225	308580	Unknown	8/04/1957	142	141.7				1662.2	East
37	325443	Unknown	26/05/1982	104	104				1666.7	North
208	308296	Unknown	2/05/1949	58	57.9				1669.3	North-east
98	325402	Unknown	17/02/1982	10	10				1679.2	North
111	325403	Unknown	27/11/1981	11	11				1683.4	North
139	309324	Unknown	22/06/1982	30	30				1686.0	North
133	309300	Unknown	18/01/1982	34	34				1689.6	North
22	325378	Unknown	4/05/1981	41	40.9				1690.1	South-west
228	308578	Unknown	18/03/1957	290	290.5				1693.2	East
49	325218	Unknown	31/12/1920	30	30.5				1699.2	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
175	308575	Unknown	15/05/1957	75	74.7				1701.2	North-east
148	309323	Unknown	10/05/1982	28	28				1704.0	North
224	308261	Unknown	23/05/1949	24	24.4				1707.4	East
92	325417	Unknown	10/11/1981	26	25.5				1720.0	North
229	308584	Unknown	19/02/1957	246	245.7				1723.4	East
196	308914	Unknown	29/04/1964	43	43				1723.7	North-east
23	325385	Unknown	5/08/1981	82	81.5				1723.9	North-west
223	308582	Unknown	14/05/1957	110	110.3				1738.5	South-east
32	325244	Unknown	20/03/1964	100	100				1744.7	North
218	308250	Unknown	17/05/1949	32	32				1746.7	North-east
66	334580	Unknown	11/10/1963	172	172.2				1751.6	South
230	308706	Unknown	15/04/1959	3	3				1758.4	East
106	324502	Unknown	19/02/1982	30	30				1769.4	North
8	325323	Unknown	11/08/1981	204	204				1771.5	North-west
6	325322	Unknown	28/07/1980	22	22				1777.5	North-west
206	308916	Unknown	7/05/1964	31	31.1				1785.5	North-east
151	WRK032916	Stock and Domestic	1/04/2001	75	75			4	1790.2	South
231	308233	Unknown	20/04/1949	143	143.3				1793.1	East
122	324053	Unknown	7/11/1968	14	14				1797.6	North
121	324503	Unknown	11/02/1982	36	36				1802.8	North
197	308918	Unknown	21/05/1964	30	30.5				1807.3	North-east
226	308252	Unknown	19/05/1949	22	22.3				1817.7	East
213	308919	Unknown	27/05/1964	31	30.8				1856.9	North-east
162	334617	Unknown	30/11/1965	9	9.1				1859.2	South-east
15	325393	Unknown	21/07/1981	40	39.5				1862.8	North-west
7	325371	Unknown	1/05/1981	32	32				1862.8	North-west
219	308295	Unknown	17/11/1948	78	77.7				1863.2	North-east
232	308262	Unknown	24/05/1949	17	17.4				1873.8	East
216	308988	Unknown	30/11/1965	9	8.8				1875.0	South-east
198	308576	Unknown	3/04/1957	72	72.5				1885.7	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
26	325325	Unknown	7/11/1980	196	196				1907.1	North-west
227	308249	Unknown	18/05/1949	24	24.4				1907.4	East
3	325358	Unknown	27/02/1981	67	67				1912.0	West
67	322507	Unknown	24/05/1956	62	62.5				1921.5	North
57	325240	Unknown	14/02/1963	96	95.7				1924.0	North
87	322508	Unknown	25/05/1956	64	64				1936.9	North
1	325356	Unknown	3/02/1981	83	83				1940.0	West
61	321044	Unknown	31/12/1919	30	30.5				1942.7	North
9	325413	Unknown	5/02/1982	31	31.3				1945.2	South-west
11	325339	Unknown	25/11/1980	191	191				1951.9	North-west
48	325229	Unknown	11/06/1956	56	56.4				1956.6	North
104	322509	Unknown	17/05/1956	57	56.7				1959.6	North
16	325366	Unknown	6/04/1981	28	27.5				1962.5	North-west
233	321166	Unknown	20/03/1920	9	9.4				1963.7	South-east
10	325398	Unknown	17/09/1981	30	30				1971.6	North-west
43	325236	Unknown	28/08/1962	3	3				1973.4	North
234	308228	Unknown	24/03/1949	76	76.2				1979.9	North-east
132	322510	Unknown	29/05/1956	55	55.2				1980.1	North
2	325344	Unknown	19/12/1980	63	63				1991.7	West

Groundwater Bores Driller Lithology Details

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
325221	#N/A	2.7	North
325223	#N/A	97.7	South
325225	#N/A	111.2	South-west
308243	#N/A	113.0	South
325235	#N/A	153.8	South
325315	#N/A	179.6	North
308281	#N/A	269.4	South-east
325246	#N/A	287.1	North
325264	#N/A	296.9	North
325247	#N/A	314.3	North
325248	#N/A	353.9	North
325222	#N/A	388.0	West
325249	#N/A	395.8	North

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
325437	#N/A	407.1	North
325250	#N/A	425.6	North
308905	#N/A	435.9	North-east
325317	#N/A	452.9	North
325314	#N/A	456.1	North
308006	#N/A	460.2	East
325251	#N/A	467.5	North
325234	#N/A	495.4	West
308234	#N/A	533.7	East
308975	#N/A	535.9	North-east
325355	#N/A	536.5	North
308246	#N/A	550.6	East
325348	#N/A	558.1	West
325438	#N/A	558.4	North
325316	#N/A	559.0	North
325341	#N/A	570.4	North-west
308908	#N/A	574.5	North-east
325321	#N/A	590.9	North-west
325333	#N/A	641.7	North-west
325436	#N/A	710.9	North
308976	#N/A	715.2	North-east
308289	#N/A	748.9	East
325320	#N/A	761.8	North-west
325318	#N/A	772.4	North
325369	#N/A	791.0	West
325434	#N/A	801.8	North
325253	#N/A	806.7	North
308903	#N/A	807.7	North-east
325442	#N/A	817.3	North
325252	#N/A	837.6	North
308278	#N/A	855.4	East
325311	#N/A	856.3	North
325254	#N/A	857.6	North
308244	#N/A	870.1	East
325389	#N/A	871.1	North-west

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
308981	#N/A	880.9	North-east
325255	#N/A	881.3	North
308566	#N/A	889.4	South-east
309034	#N/A	890.8	South-east
308906	#N/A	892.4	North-east
308236	#N/A	902.3	East
308978	#N/A	904.1	North
308979	#N/A	906.3	North-east
308980	#N/A	912.9	North-east
325368	#N/A	913.1	North-west
308911	#N/A	922.6	East
325256	#N/A	930.0	North
325257	#N/A	938.5	North
308977	#N/A	942.4	North
325262	#N/A	948.9	North
325258	#N/A	967.4	North
325263	#N/A	968.0	North
308982	#N/A	968.2	South-east
308247	#N/A	968.3	East
325319	#N/A	977.5	North-west
308272	#N/A	979.0	East
325435	#N/A	993.6	North
308907	#N/A	1004.6	North-east
309033	#N/A	1053.3	East
325224	#N/A	1055.3	South-west
334578	#N/A	1057.2	South
325397	#N/A	1067.0	West
84264	#N/A	1075.0	South-west
308983	#N/A	1078.6	South-east
308274	#N/A	1096.9	East
325419	#N/A	1097.8	North

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
308231	#N/A	1098.5	North-east
308985	#N/A	1100.1	East
325420	#N/A	1100.1	North
325367	#N/A	1106.0	North-west
325326	#N/A	1108.9	West
325226	#N/A	1133.5	North
308577	#N/A	1139.4	North-east
325312	#N/A	1142.6	North
325245	#N/A	1153.0	North
309303	#N/A	1156.6	North
308271	#N/A	1159.1	East
308912	#N/A	1175.7	North
325332	#N/A	1176.9	North-west
325313	#N/A	1191.2	North
325407	#N/A	1192.3	North
308902	#N/A	1201.8	North
308258	#N/A	1207.3	East
325422	#N/A	1208.5	North
334550	#N/A	1216.9	South
325423	#N/A	1219.2	North
308915	#N/A	1223.2	North-east
308579	#N/A	1228.1	East
WRK987433	#N/A	1236.2	South
325424	#N/A	1244.2	North
308984	#N/A	1245.3	South-east
308264	#N/A	1259.4	East
308904	#N/A	1261.9	North-east
325430	#N/A	1270.5	North
308242	#N/A	1294.7	East
309322	#N/A	1295.7	North
308230	#N/A	1297.8	North-east

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
309032	#N/A	1298.8	East
308889	#N/A	1300.6	East
325400	#N/A	1305.9	North
325399	#N/A	1309.2	North-west
325425	#N/A	1318.9	North
325331	#N/A	1324.2	North-west
309302	#N/A	1325.4	North
308005	#N/A	1328.0	North-east
325408	#N/A	1341.6	North
309317	#N/A	1345.5	North
325219	#N/A	1346.7	South-west
308986	#N/A	1347.6	South-east
308270	#N/A	1347.8	East
325440	#N/A	1348.7	North-west
308581	#N/A	1350.8	East
325405	#N/A	1358.5	North
308259	#N/A	1359.1	East
325220	#N/A	1369.5	North-west
308909	#N/A	1391.7	North-east
325406	#N/A	1395.5	North
334579	#N/A	1396.3	South
325426	#N/A	1403.3	North
325427	#N/A	1416.2	North
309325	#N/A	1426.6	North
308232	#N/A	1427.8	East
308298	#N/A	1432.5	North-east
325429	#N/A	1436.7	North
334615	#N/A	1438.4	South-east
308257	#N/A	1459.4	North-east
325428	#N/A	1464.0	North
325401	#N/A	1490.9	North

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
308583	#N/A	1493.3	East
308913	#N/A	1518.1	North-east
325347	#N/A	1522.1	West
325230	#N/A	1525.7	North
308269	#N/A	1528.7	East
325231	#N/A	1531.5	North
325309	#N/A	1531.5	North
309301	#N/A	1535.4	North
325421	#N/A	1536.3	North
308260	#N/A	1537.6	North-east
309320	#N/A	1538.3	North
309321	#N/A	1539.0	North
325349	#N/A	1543.7	North-west
308297	#N/A	1550.9	North-east
308299	#N/A	1557.0	North-east
325232	#N/A	1561.7	North
325433	#N/A	1570.4	North
325233	#N/A	1574.6	North
308288	#N/A	1579.9	North-east
325242	#N/A	1583.6	North
325432	#N/A	1586.7	North
325431	#N/A	1598.0	North
308574	#N/A	1605.1	North
308263	#N/A	1607.9	East
308987	#N/A	1608.4	South-east
308917	#N/A	1611.8	North-east
334616	#N/A	1633.0	South-east
308229	#N/A	1637.3	East
308910	#N/A	1639.2	North-east
325404	#N/A	1648.7	North
325334	#N/A	1659.7	North-west

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
325377	#N/A	1660.3	South-west
325376	#N/A	1661.5	South-west
325381	#N/A	1662.1	South-west
308580	#N/A	1662.2	East
325443	#N/A	1666.7	North
308296	#N/A	1669.3	North-east
325402	#N/A	1679.2	North
325403	#N/A	1683.4	North
309324	#N/A	1686.0	North
309300	#N/A	1689.6	North
325378	#N/A	1690.1	South-west
308578	#N/A	1693.2	East
325218	#N/A	1699.2	South-west
308575	#N/A	1701.2	North-east
309323	#N/A	1704.0	North
308261	#N/A	1707.4	East
325417	#N/A	1720.0	North
308584	#N/A	1723.4	East
308914	#N/A	1723.7	North-east
325385	#N/A	1723.9	North-west
308582	#N/A	1738.5	South-east
325244	#N/A	1744.7	North
308250	#N/A	1746.7	North-east
334580	#N/A	1751.6	South
308706	#N/A	1758.4	East
324502	#N/A	1769.4	North
325323	#N/A	1771.5	North-west
325322	#N/A	1777.5	North-west
308916	#N/A	1785.5	North-east
WRK032916	0m-1m Clay, Gravel Stones 1m-15m Clay 15m-19m Clay And Fine Sand 19m-45m Clay 45m-49m Clay & Gravel	1790.2	South

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
	49m-52m Sand 52m-63m Clay & Gravel 63m-70m Sand 70m-75m Clay		
308233	#N/A	1793.1	East
324053	#N/A	1797.6	North
324503	#N/A	1802.8	North
308918	#N/A	1807.3	North-east
308252	#N/A	1817.7	East
308919	#N/A	1856.9	North-east
334617	#N/A	1859.2	South-east
325393	#N/A	1862.8	North-west
325371	#N/A	1862.8	North-west
308295	#N/A	1863.2	North-east
308262	#N/A	1873.8	East
308988	#N/A	1875.0	South-east
308576	#N/A	1885.7	North-east
325325	#N/A	1907.1	North-west
308249	#N/A	1907.4	East
325358	#N/A	1912.0	West
322507	#N/A	1921.5	North
325240	#N/A	1924.0	North
322508	#N/A	1936.9	North
325356	#N/A	1940.0	West
321044	#N/A	1942.7	North
325413	#N/A	1945.2	South-west
325339	#N/A	1951.9	North-west
325229	#N/A	1956.6	North
322509	#N/A	1959.6	North
325366	#N/A	1962.5	North-west
321166	#N/A	1963.7	South-east
325398	#N/A	1971.6	North-west
325236	#N/A	1973.4	North

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
308228	#N/A	1979.9	North-east
322510	#N/A	1980.1	North
325344	#N/A	1991.7	West

2.2 HYDROGEOLOGY AND OTHER BOREHOLES

Map 2.2 (500m Buffer)

	On the Property?	Within Buffer?
Groundwater Management Areas	ROSEDALE GROUNDWATER MANAGEMENT AREA - Zone 1	ROSEDALE GROUNDWATER MANAGEMENT AREA - Zone 1
Hydrogeologic Unit	Surficial Sediment Aquifer (porous media - unconsolidated) Upper Tertiary/Quaternary Aquitard (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	Moderate potential for GW interaction	Low potential for GW interaction 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
325221	Coal	Dept. Manufacturing & Industry	Department of Manufacturing & Industry Development	30/08/1919	28.0	5.7	North-west
325223	Coal	Dept. Manufacturing & Industry	Department of Manufacturing & Industry Development	27/09/1919	24.7	98.2	South
325225	Coal	State Electricity Commission	State Electricity Commission of Victoria	13/07/1946	59.1	108.2	South-west
308243	Coal	State Electricity Commission	State Electricity Commission of Victoria	12/05/1949	36.6	119.1	South
325235	Coal	State Electricity Commission	State Electricity Commission of Victoria	22/06/1956	41.8	156.3	South
325315	Coal	State Electricity Commission	State Electricity Commission of Victoria	23/08/1980	193.0	176.1	North
308281	Coal	State Electricity Commission	State Electricity Commission of Victoria	01/06/1949	31.4	270.3	South-east
325246	Coal	State Electricity Commission	State Electricity Commission of Victoria	30/11/1965	9.1	282.3	North
325264	Coal	State Electricity Commission	State Electricity Commission of Victoria	28/06/1967	3.0	289.9	North
325247	Coal	State Electricity Commission	State Electricity Commission of Victoria	30/11/1965	9.1	317.7	North
325248	Coal	State Electricity Commission	State Electricity Commission of Victoria	30/11/1965	9.1	355.7	North

Borehole ID	Purpose	Project	Client/ License	Date Drilled	Depth (m)	Distance (m)	Direction
325222	Coal	Dept. Manufacturing & Industry	Department of Manufacturing & Industry Development	06/09/1919	18.3	385.4	West
325249	Coal	State Electricity Commission	State Electricity Commission of Victoria	30/11/1965	9.8	394.0	North
325437	Coal	State Electricity Commission	State Electricity Commission of Victoria	05/03/1982	20.0	417.0	North
325250	Coal	State Electricity Commission	State Electricity Commission of Victoria	30/11/1965	16.2	430.9	North
308905	Coal	State Electricity Commission	State Electricity Commission of Victoria	23/04/1964	68.3	441.8	North-east
325317	Coal	State Electricity Commission	State Electricity Commission of Victoria	10/09/1980	201.0	454.3	North
325314	Coal	State Electricity Commission	State Electricity Commission of Victoria	03/10/1980	80.0	461.8	North
308006	Coal	State Electricity Commission	State Electricity Commission of Victoria	18/06/1946	106.1	463.5	East
325251	Coal	State Electricity Commission	State Electricity Commission of Victoria	30/11/1965	13.7	468.3	North
325234	Coal	State Electricity Commission	State Electricity Commission of Victoria	15/06/1956	17.7	495.2	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	
53X Audits	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.
53V Audits	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.

Table 3.3.1 EPA Regulatory Instruments Explanation	
Approvals	
Works approval is required for industrial and waste management activities that have the potential for significant environmental impact.	
Works Approval	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.
30A Approval	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	
Remedial notices are served to prevent or remedy a range of non-compliances or likely non-compliances. Remedial notices are not punitive measures.	
Clean Up Notice	Clean up notices (CUN) are issued under section 62A of the *Environment Protection Act 1970*. 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.
Minor Works Pollution	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.
Pollution Abatement Notice	Pollution abatement notices are issued under section 31A of the *Environment Protection Act 1970*. 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.
Post closure pollution abatement notices (PC PAN)	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.
Licences	
EPA licence is required for all scheduled premises. It allows the licence-holder to operate and sets conditions that they must meet.	
Licence	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.
Amalgamated Licence	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[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

1905 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

1915 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

1925 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

1935 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

1940 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

1945 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

1955 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

1965 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

1970 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

1975 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

1980 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

1990 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

2005 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

2010 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

2015 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	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	*When street address and names fully match.*
Street	Located to the street centroid	*When street names match but no exact address was found. Location is approximate.*
Place	Located to the structure, building or complex	*When building, residential complex or structure name match but no exact address was found. Location is approximate.*
Suburb	Located to the suburb area	*When suburb name match but no exact address was found. Location is approximate.*

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.

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
Land Subject To Inundation Overlay	Yes	Yes

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Tower Three, Level 24
300 Barangaroo Avenue
Sydney NSW 2000 Australia
02 8067 8870
info@liresources.com.au
www.liresrouces.com.au

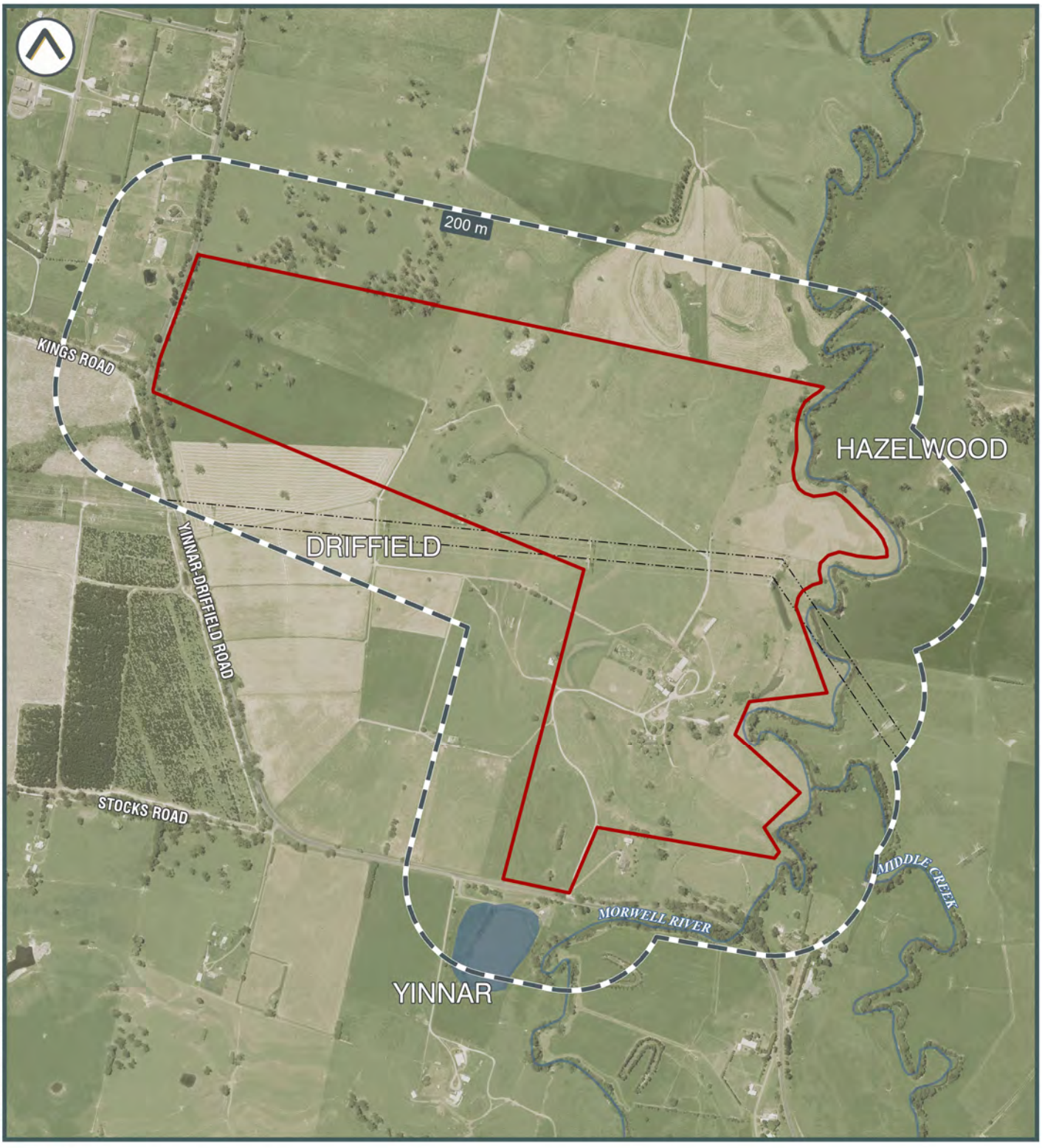
Appendix A

REPORT MAPS

PROPERTY SETTING

MAP 1.1

Subject Area and Sensitive Receptors



Subject area Power transmission

0 100 200 300 400 500m

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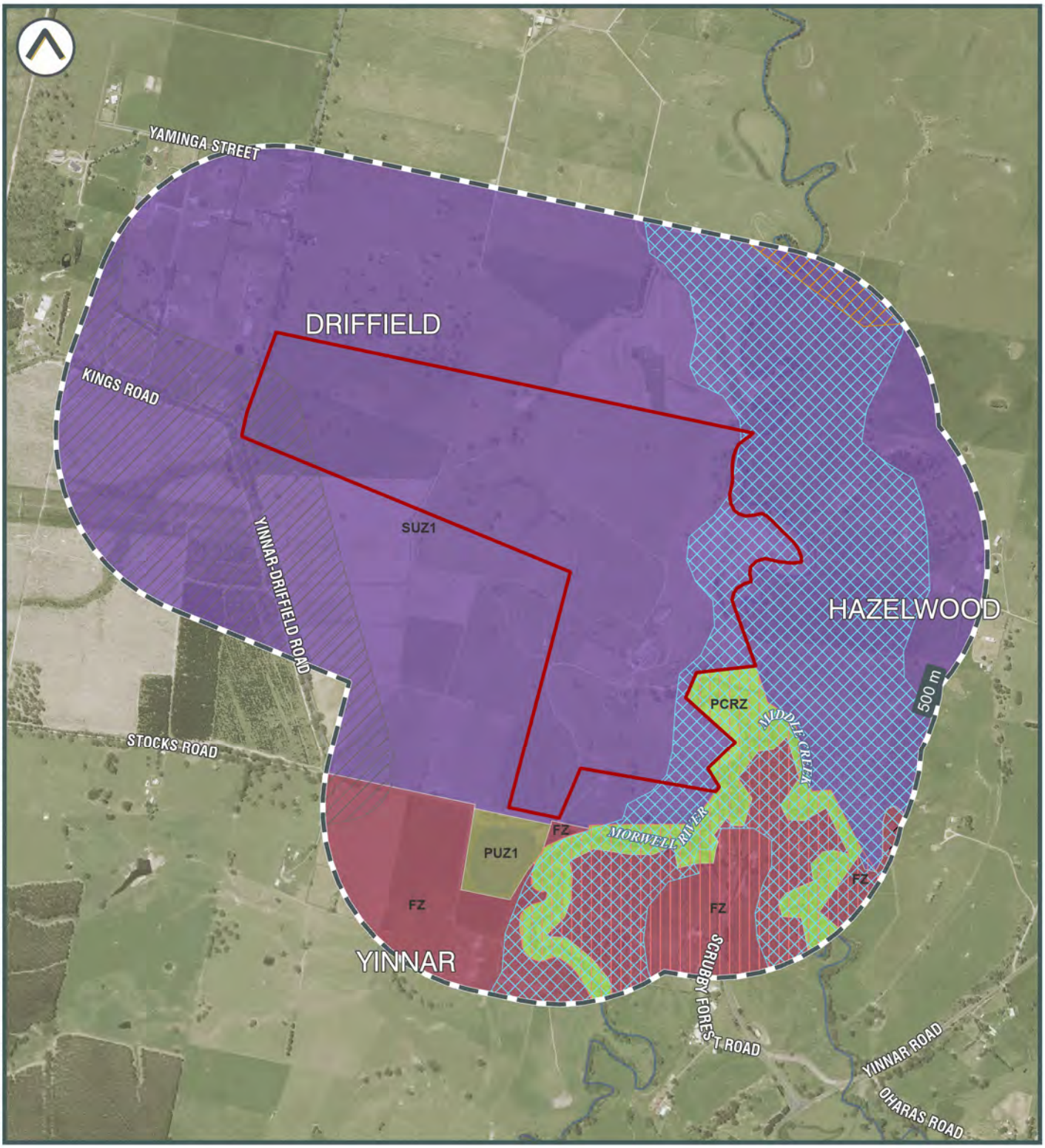
MAP 1.2

Planning Controls



Subject area

Planning Scheme
- BMO
- DDO
- ESO
- LSIO
- SRO

Zoning
- FZ | Farming Zone
- PCRZ | Public Conservation And Resource Zone
- PUZ1 | Public Use Zone – Service And Utility
- SUZ1 | Special Use Zone – Schedule 1

0 100 200 300 400 500m

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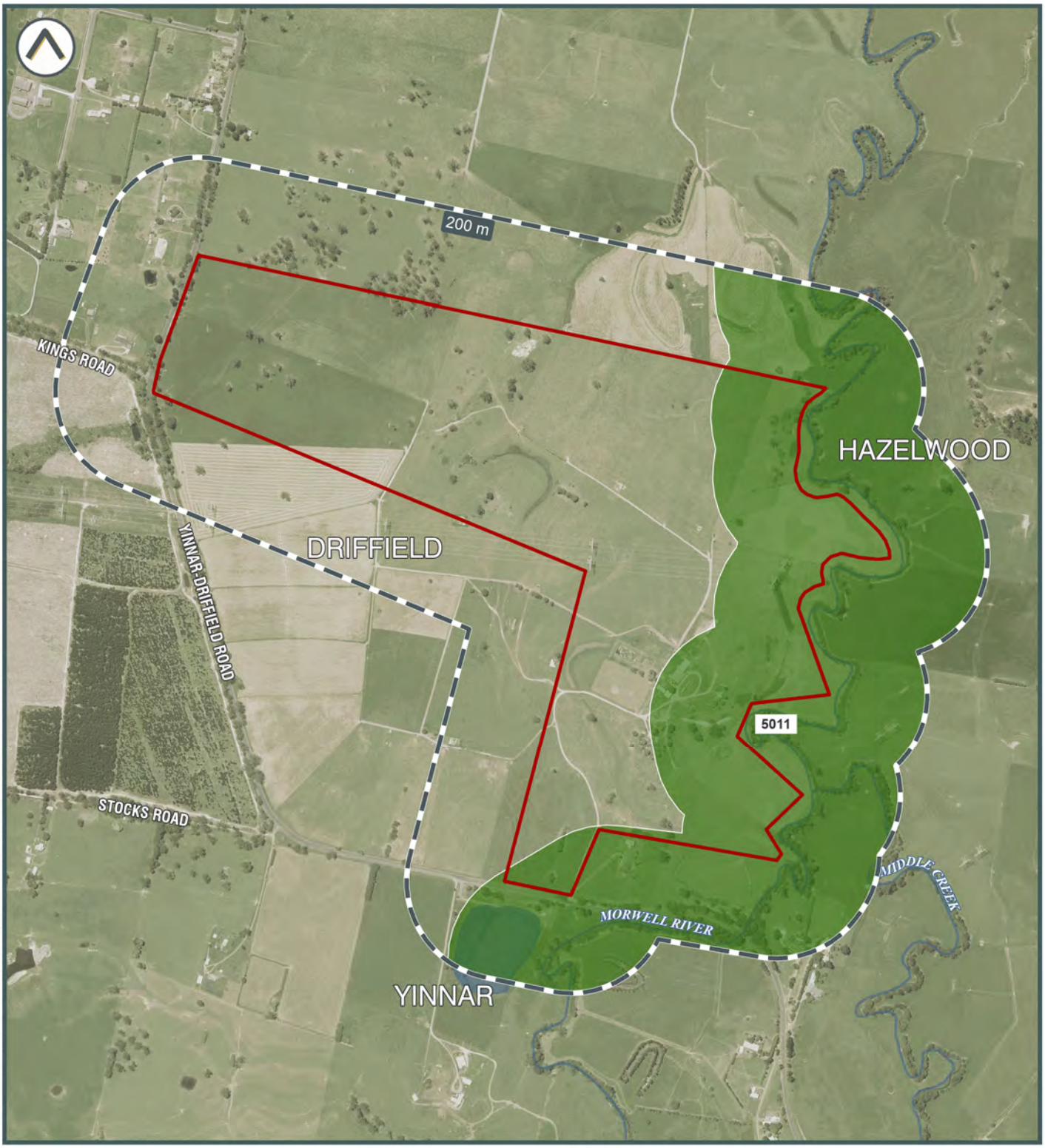
PROPERTY SETTING

Heritage

MAP 1.3



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)

0 100 200 300 400 500m

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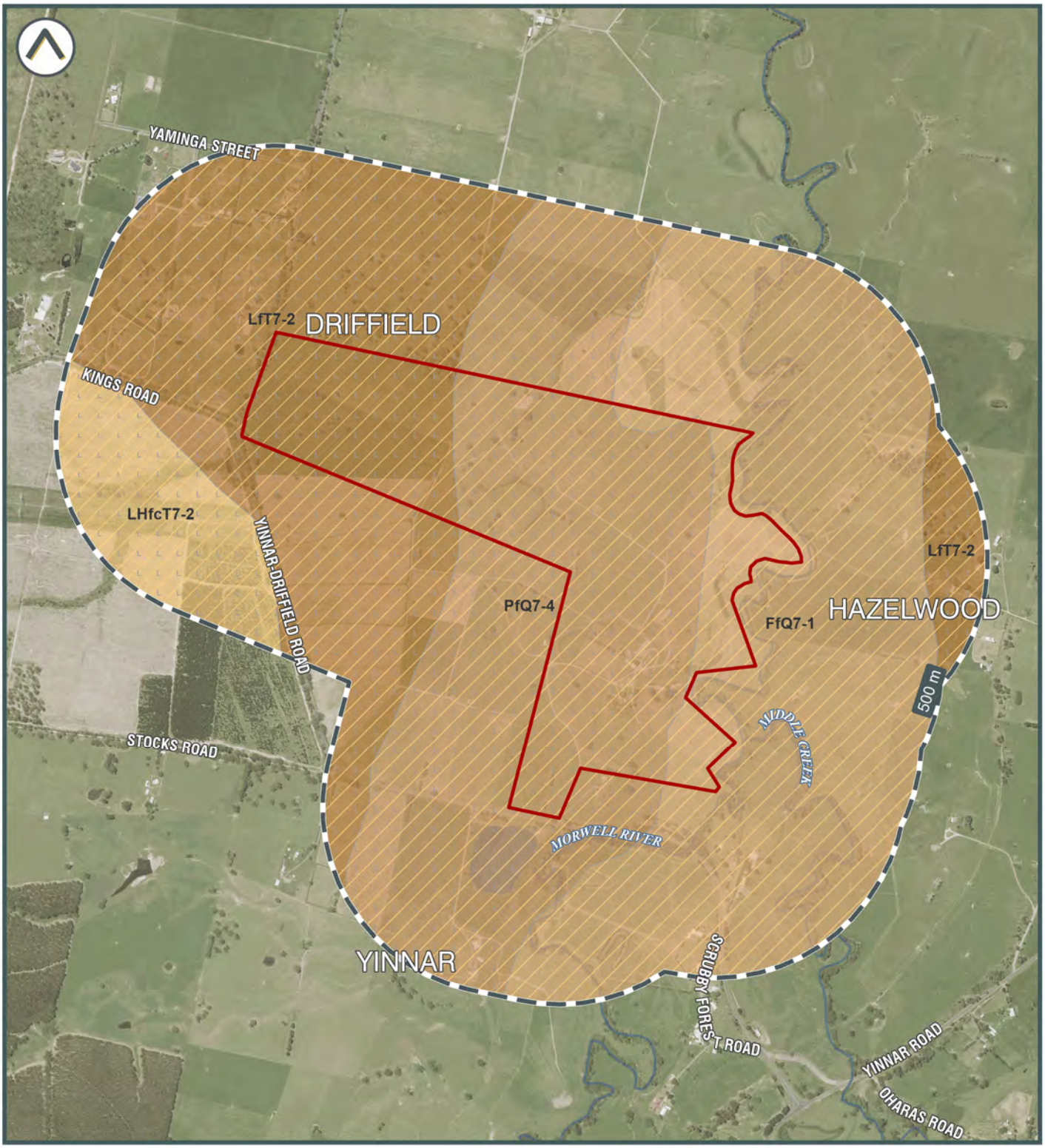
MAP 1.4a

Soil Landscape and Salinity



Subject area

Salinity Hazard
- Low

Soil Landscape
- FfQ7-1,Present flood plain
- LHfcT7-2,
- LfT7-2,Low hill (relative relief 30-90m)
- PfQ7-4,Plain above flood level (relative relief <9m)

Radon Level (Bq/m3)
- 5-19

0 100 200 300 400 500m

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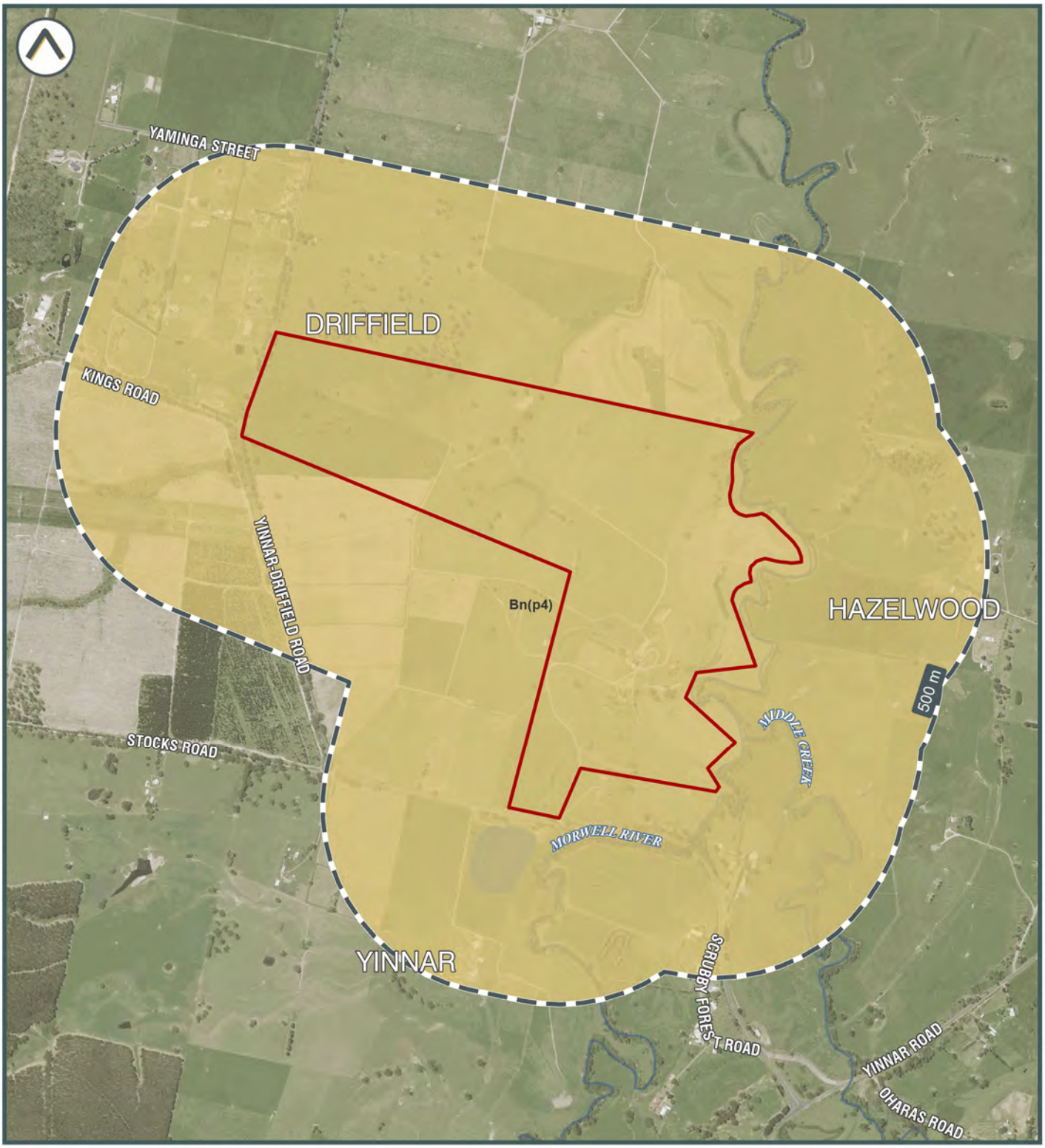
PROPERTY SETTING

Acid Sulfate Soils

MAP 1.4b



Subject area

ASRIS Atlas of Australian Sulfate Soils

Bn(p4) | ASS in inland lakes, waterways, wetlands and riparian zones

0 100 200 300 400 500m

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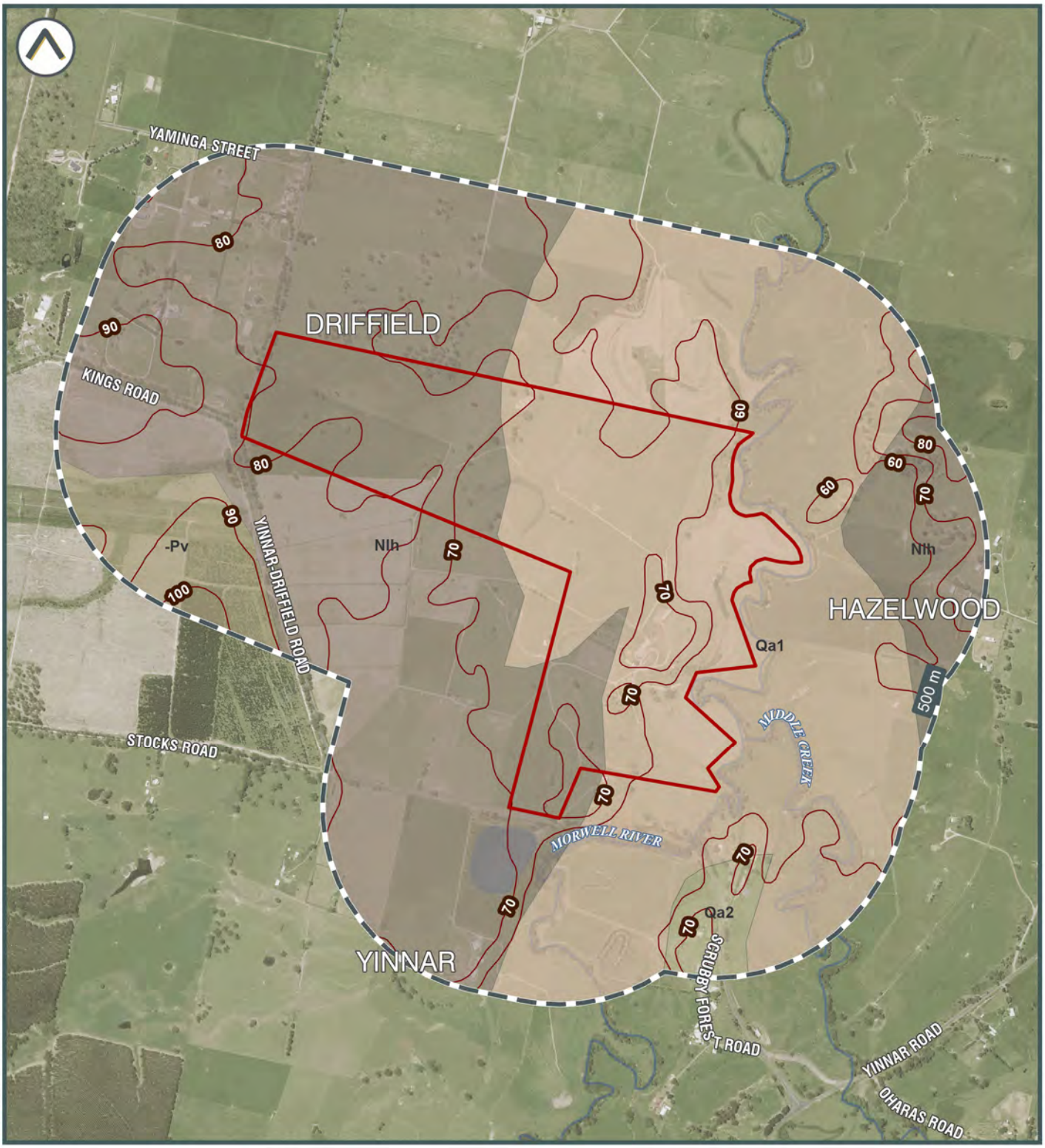
MAP 1.5

Geology and Topography



Subject area
Topographic contour (m)

1:250,000 Geological Units

-Pv | Clastic sedimentary rocks: nonmarine to paralic clastics, marine clastics.

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

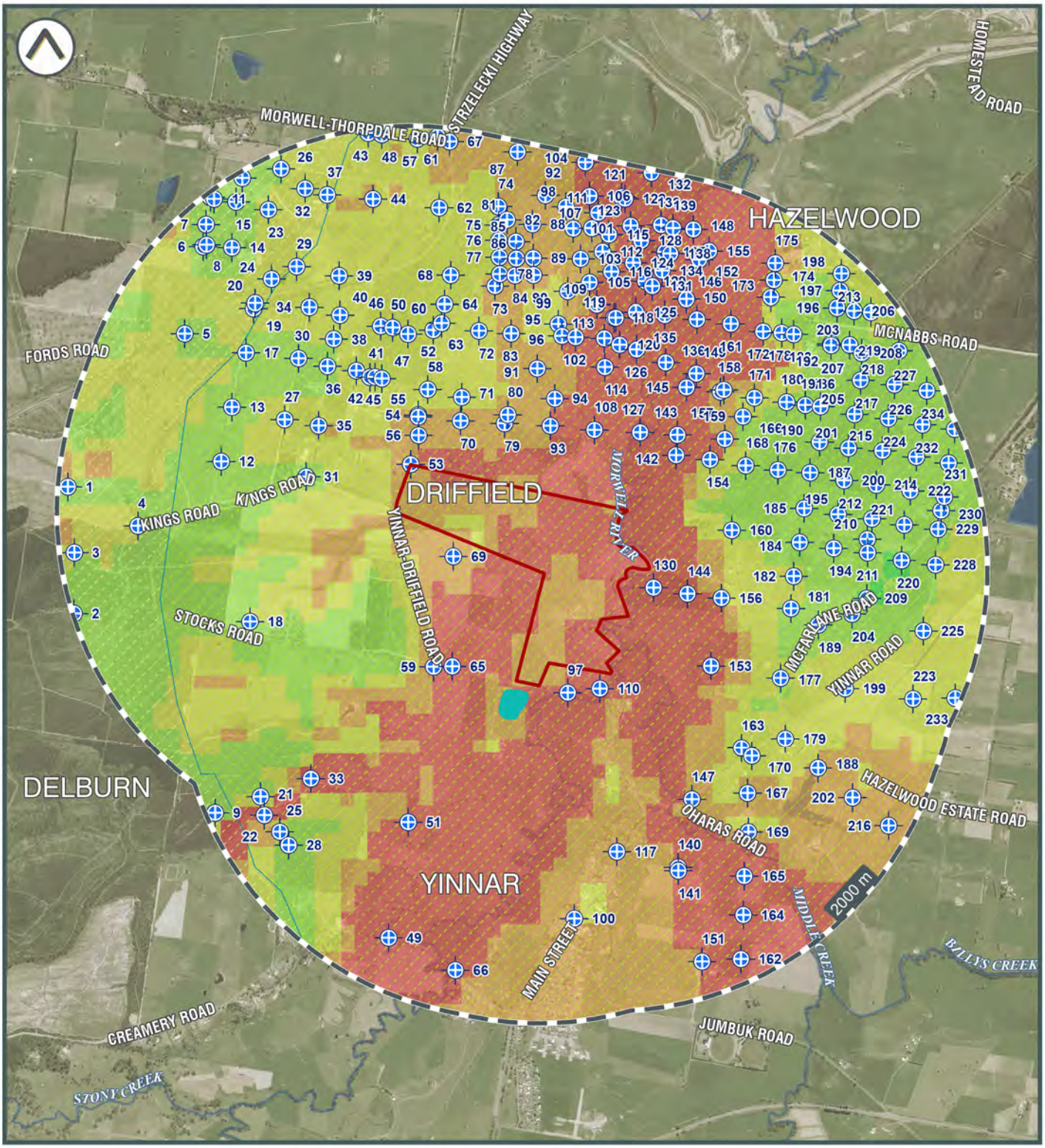
Qa1 | Gravel, sand, silt: variably sorted and rounded; generally unconsolidated; includes deposits of low terraces; alluvial floodplain deposits

Qa2 | Gravel, sand, silt: variably sorted and rounded, generally unconsolidated; dissected to form terraces higher than Qa1, alluvial floodplain deposits

0 100 200 300 400 500m

Land Insight

Hydrogeology and Groundwater Boreholes



Subject area

Groundwater bores

Wetlands

Depth to Watertable (m)

- <5
- 5–10
- 10–20
- 20–50
- >50

Groundwater salinity (mg/l)

- Less than 500
- 500 – 1,000

Aquifer type

- Porous, extensive highly productive aquifers

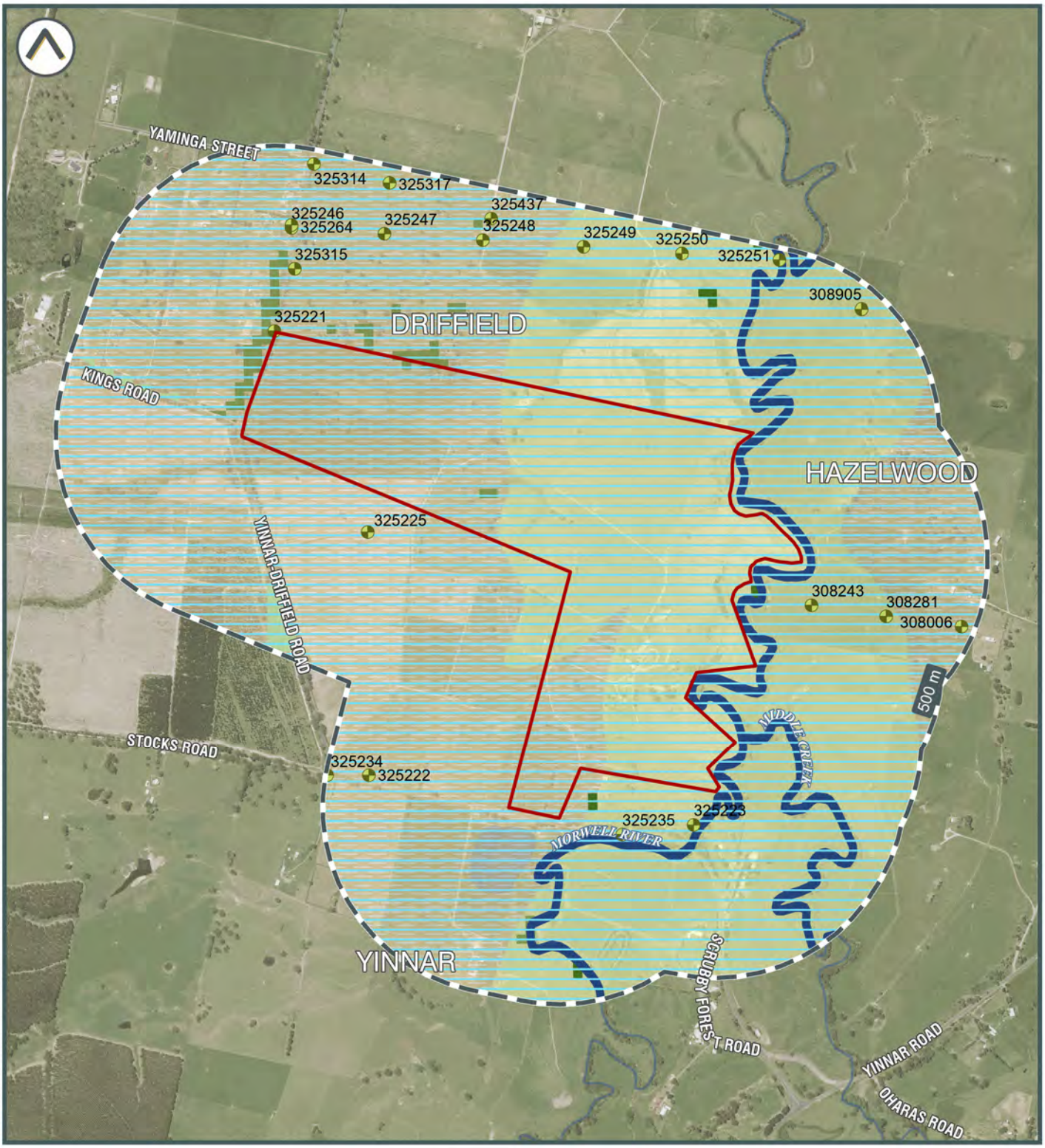
0 300 600 900 1,200 1,500m

Land Insight

HYDROGEOLOGY

MAP 2.2

Hydrogeology and Other Boreholes



- Subject area
- Other boreholes
- Groundwater Management Areas

Hydrogeologic Unit

- Surficial Sediment Aquifer (porous media – unconsolidated)
- Upper Tertiary/Quaternary Aquitard (porous media – unconsolidated)

Ecosystems that rely on the Surface expression of Groundwater

- High potential for GW interaction

Ecosystems that rely on Subsurface presence of Groundwater

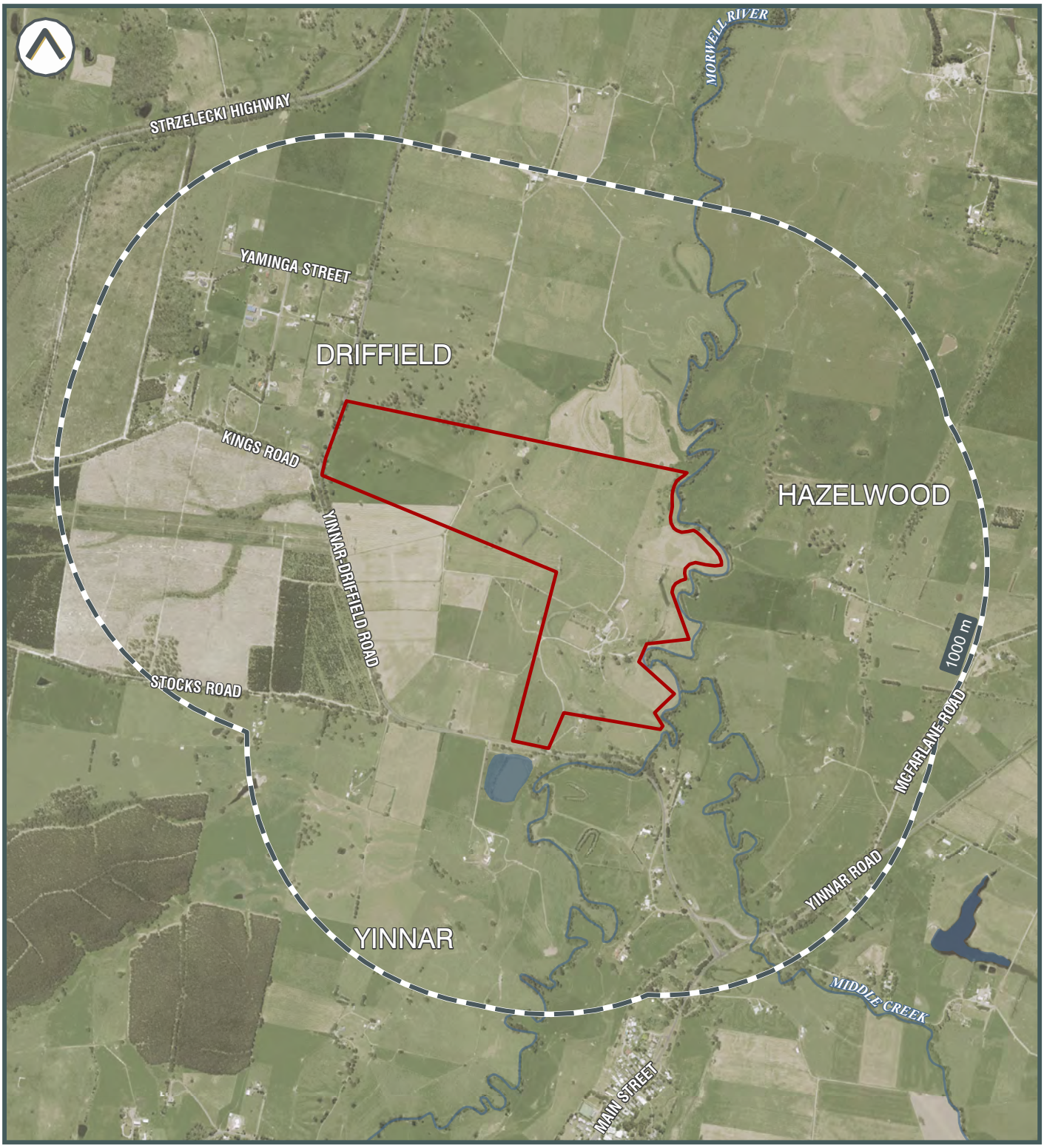
- High potential for GW interaction
- Moderate potential for GW interaction
- Low potential for GW interaction

0 100 200 300 400 500m

Land Insight

MAP 3.1

Contaminated Land Public Register



Subject area

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

0 200 400 600 800 1,000m

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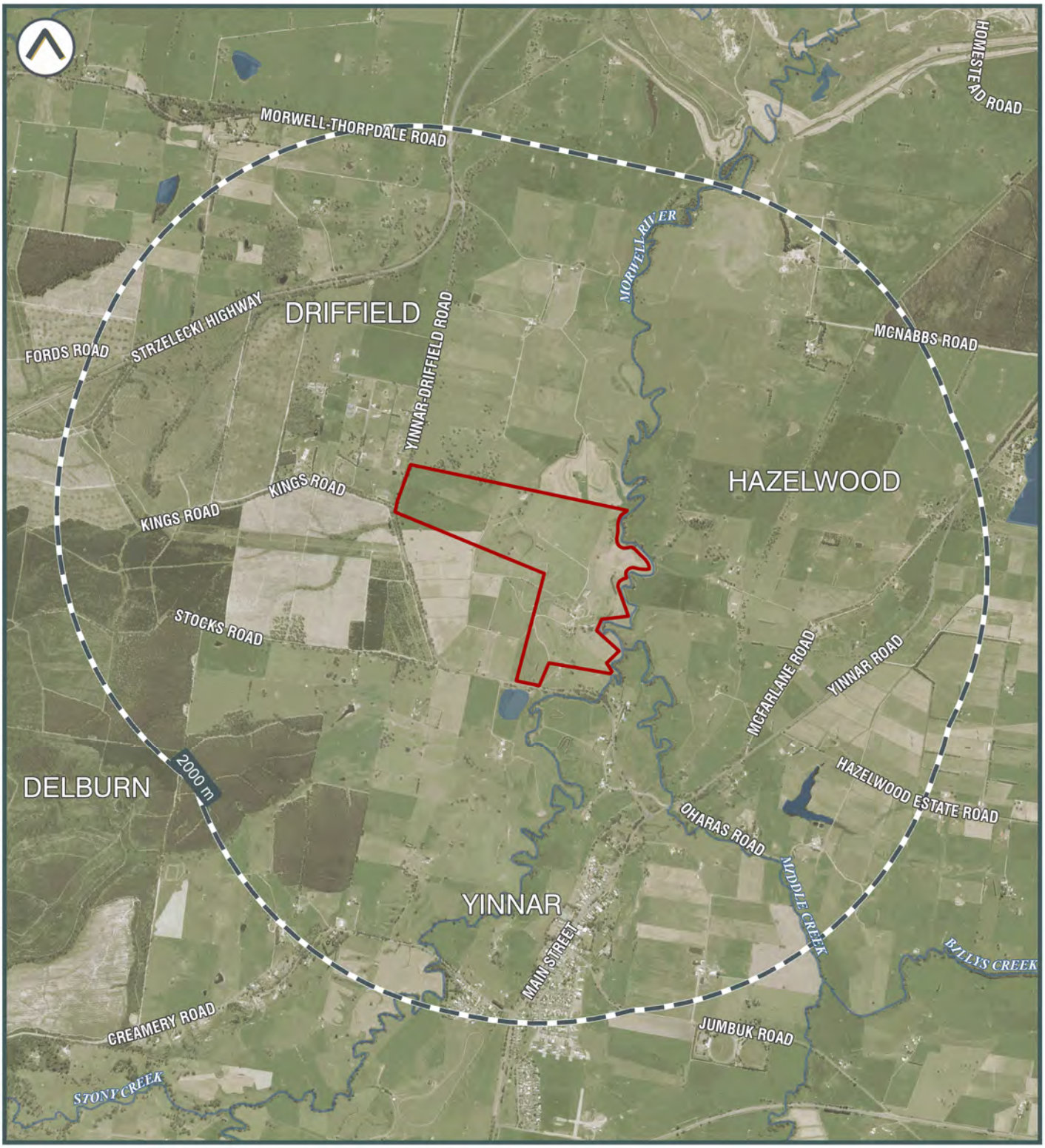
ENVIRONMENTAL REGISTERS LICENSES AND INCIDENTS

MAP 3.2

Sites Regulated by other Jurisdictional Body



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

0 300 600 900 1,200 1,500m

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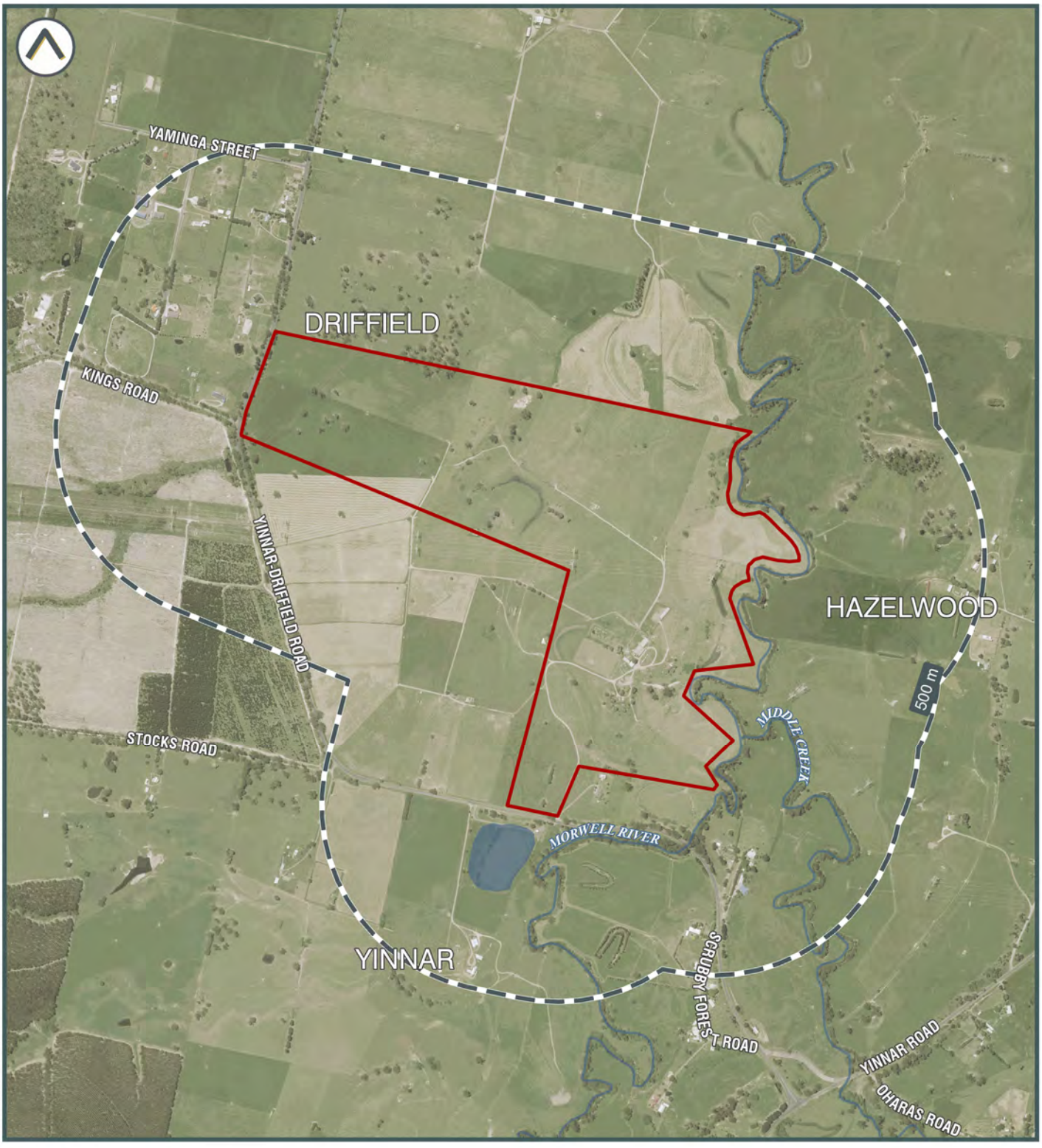
MAP 3.3

Licences, Approvals & Notices



Subject area

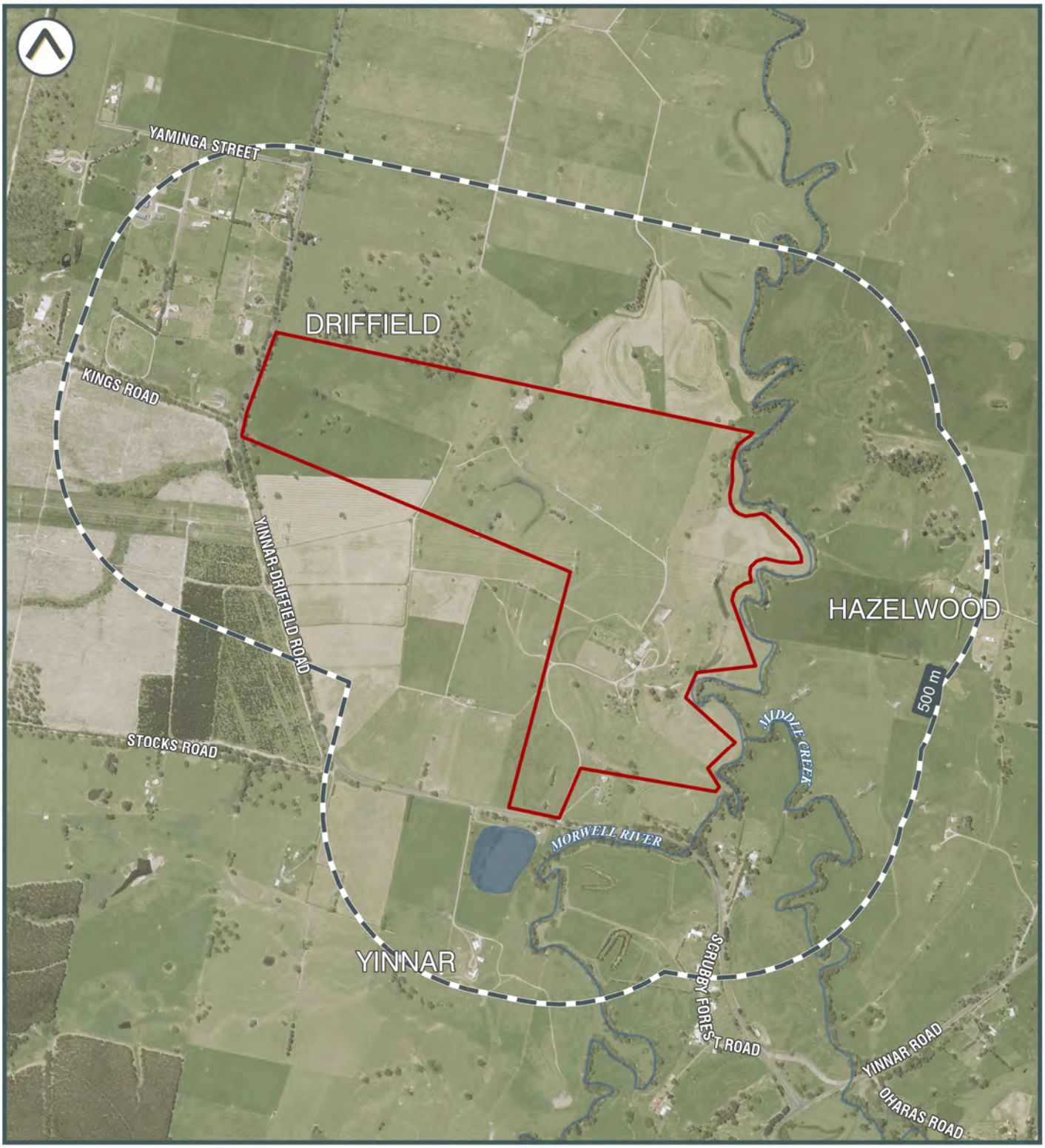
0 100 200 300 400 500m

Land Insight

POTENTIALLY CONTAMINATED AREAS

MAP 4.1

Potentially Contaminating Activities (PCAs)



Subject area

Liquid Fuel Depots

Waste Management Facilities

Operational Petrol Stations

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.

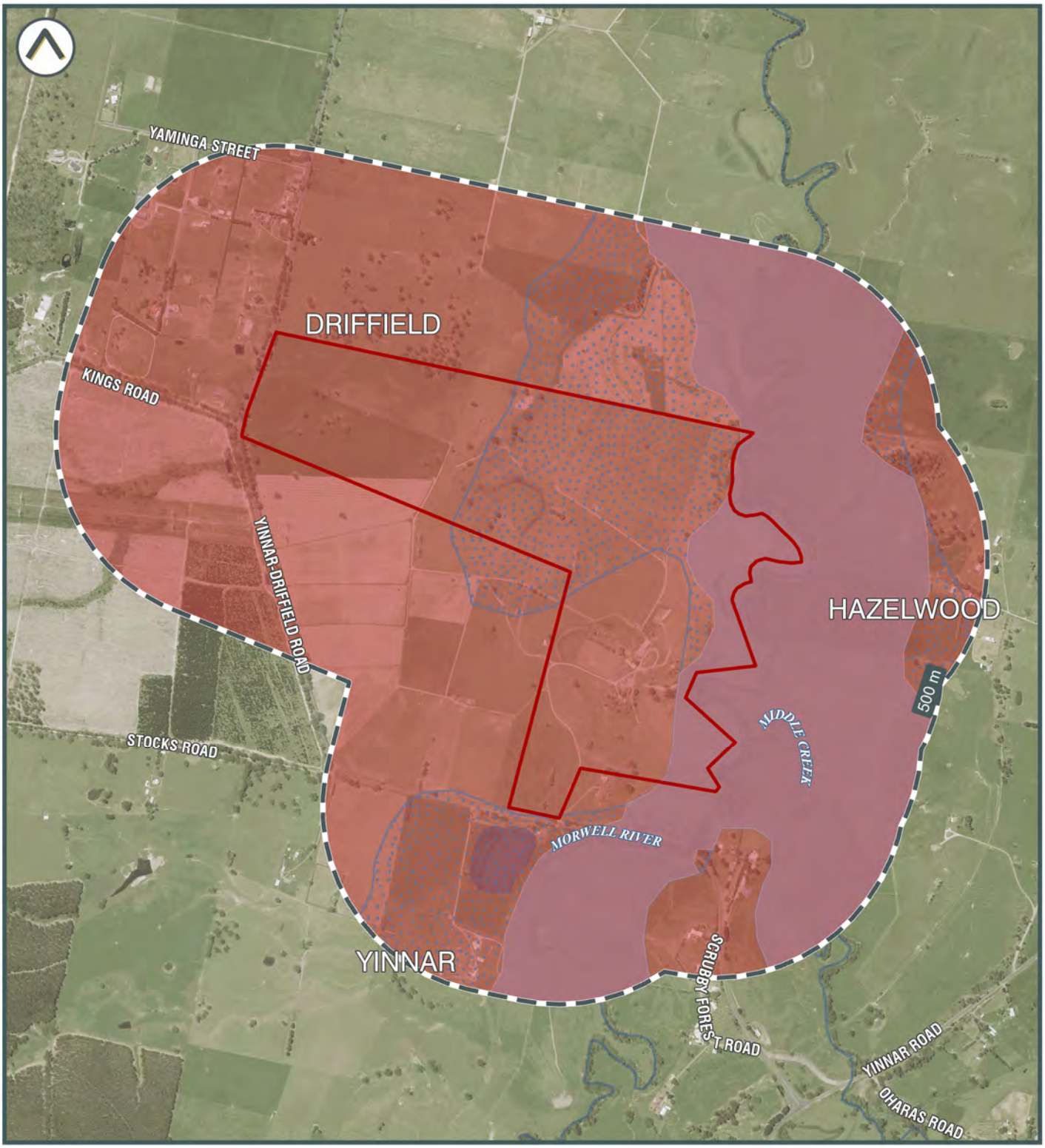
0 100 200 300 400 500m

Land Insight

NATURAL HAZARDS

MAP 5.1

Fire and Flood Hazards



Subject area | Bush Fire Prone Land | Flood Hazard: 1 in 100 year flood extent | Land Subject To Inundation Overlay

0 100 200 300 400 500m

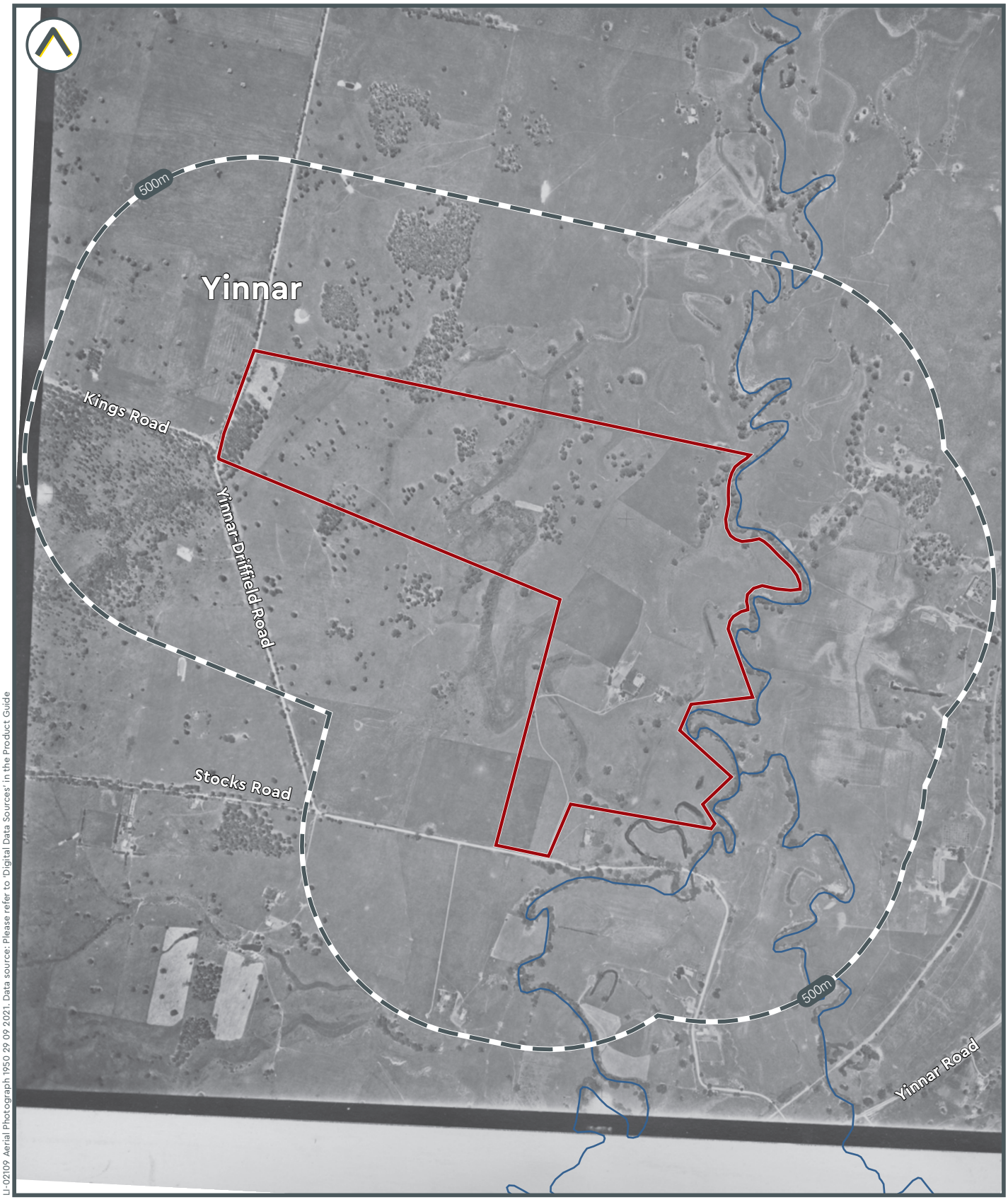
Land Insight

Land Insight RESOURCES

Appendix B

HISTORIC IMAGERY

Historic Aerial Photograph - 1950



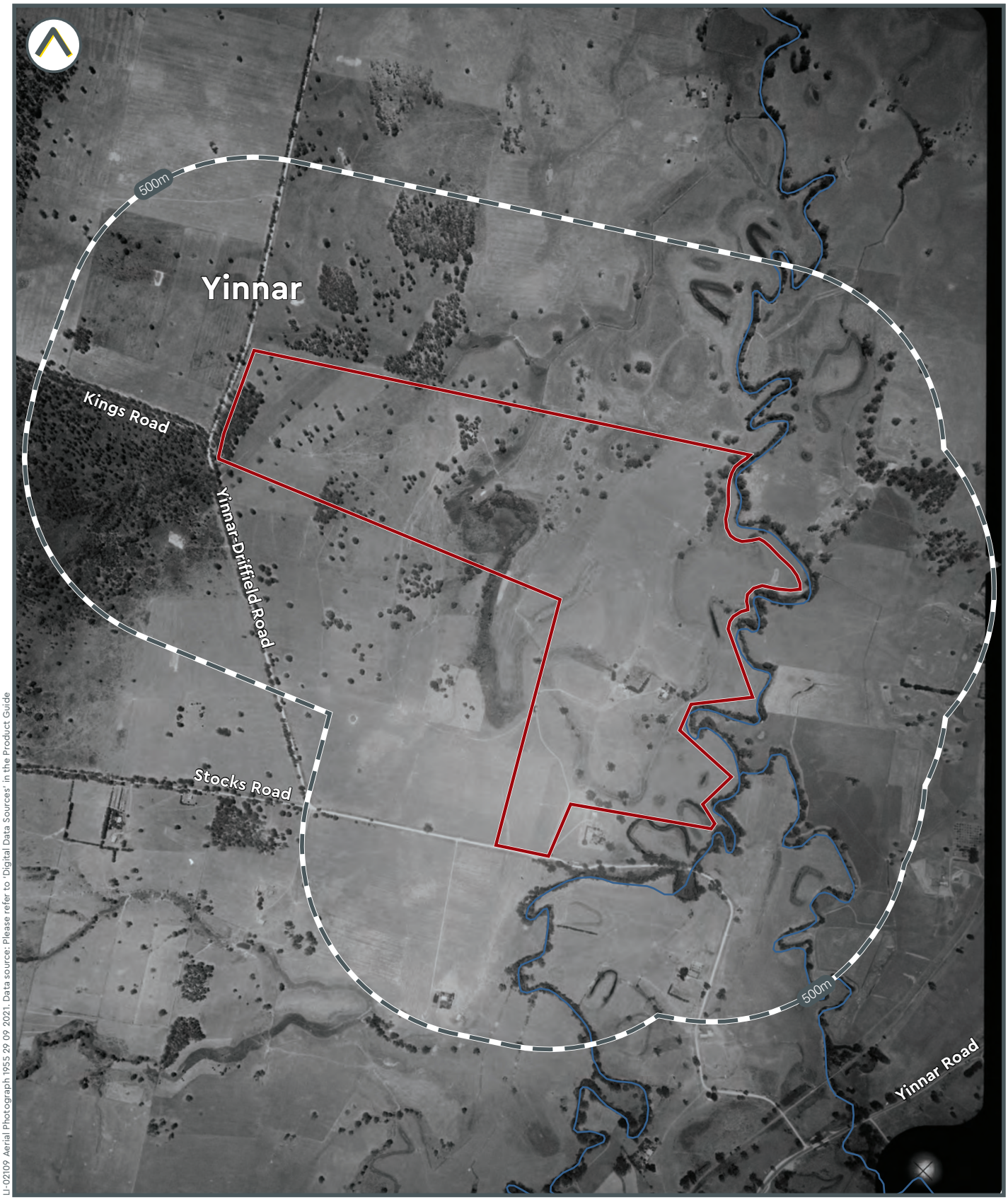
LI-02109 Aerial Photograph 1950 29 09 2021, Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 400m

Land Insight

Historic Aerial Photograph - 1955



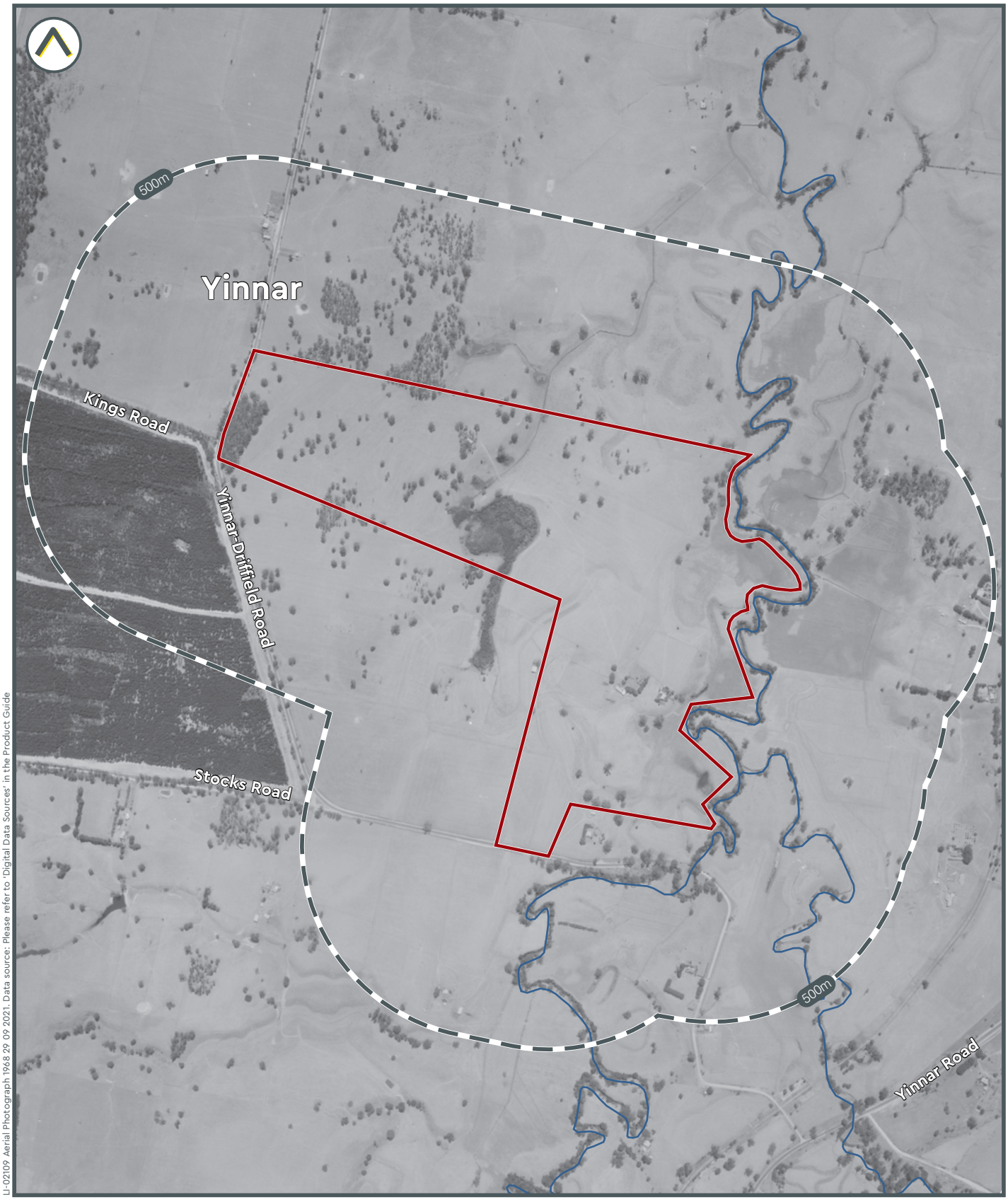
LI-02109 Aerial Photograph 1955 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 400m

Land Insight

Historic Aerial Photograph - 1968



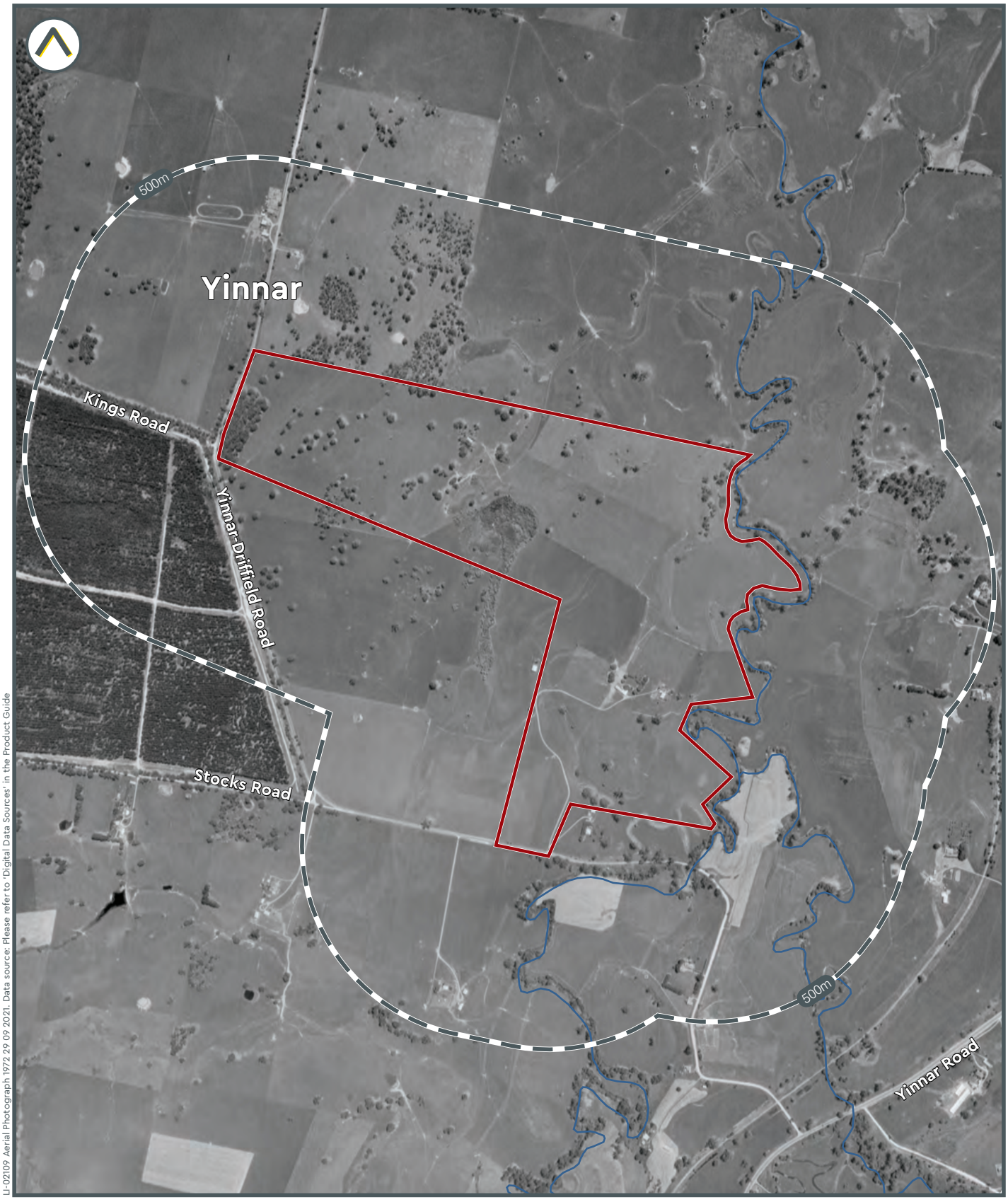
LI-02109 Aerial Photograph 1968 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 400m

Land Insight

Historic Aerial Photograph - 1972



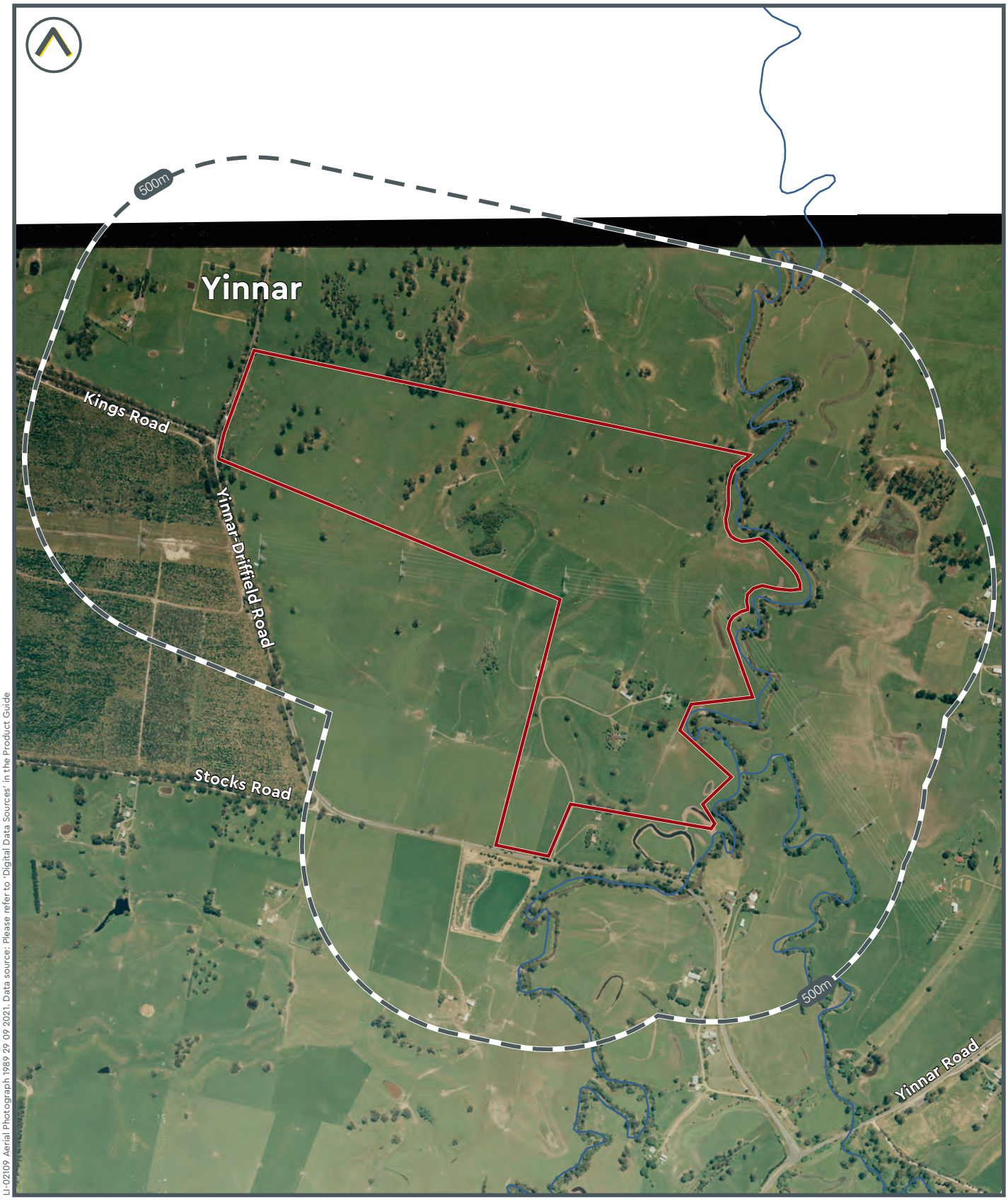
LI-02109 Aerial Photograph 1972 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 400m

Land Insight

Historic Aerial Photograph - 1989



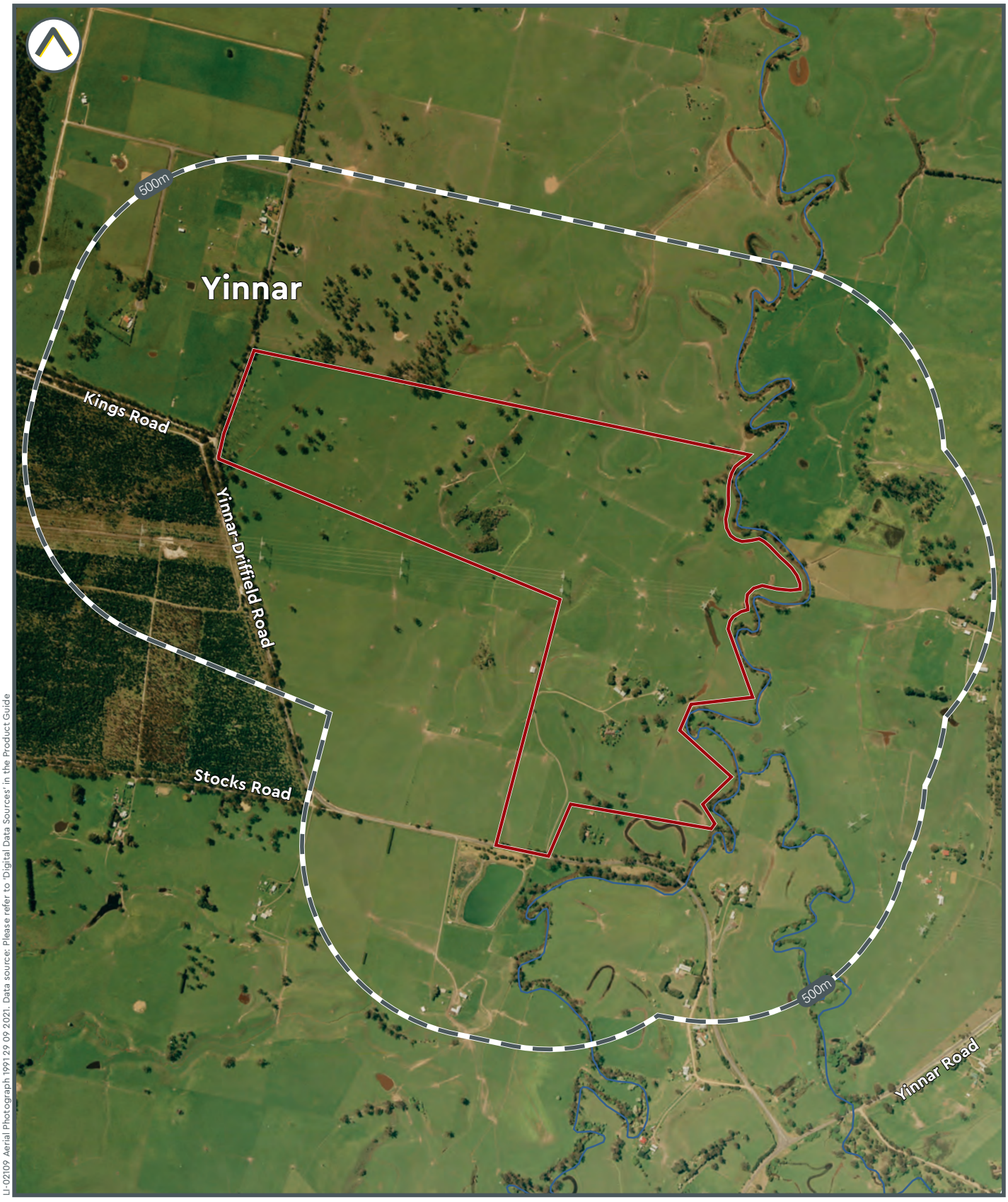
LI-02109 Aerial Photograph 1989 29 09 2021, Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 400m

Land Insight

Historic Aerial Photograph - 1991

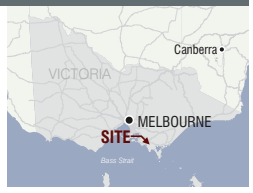


LI-02109 Aerial Photograph 1991 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

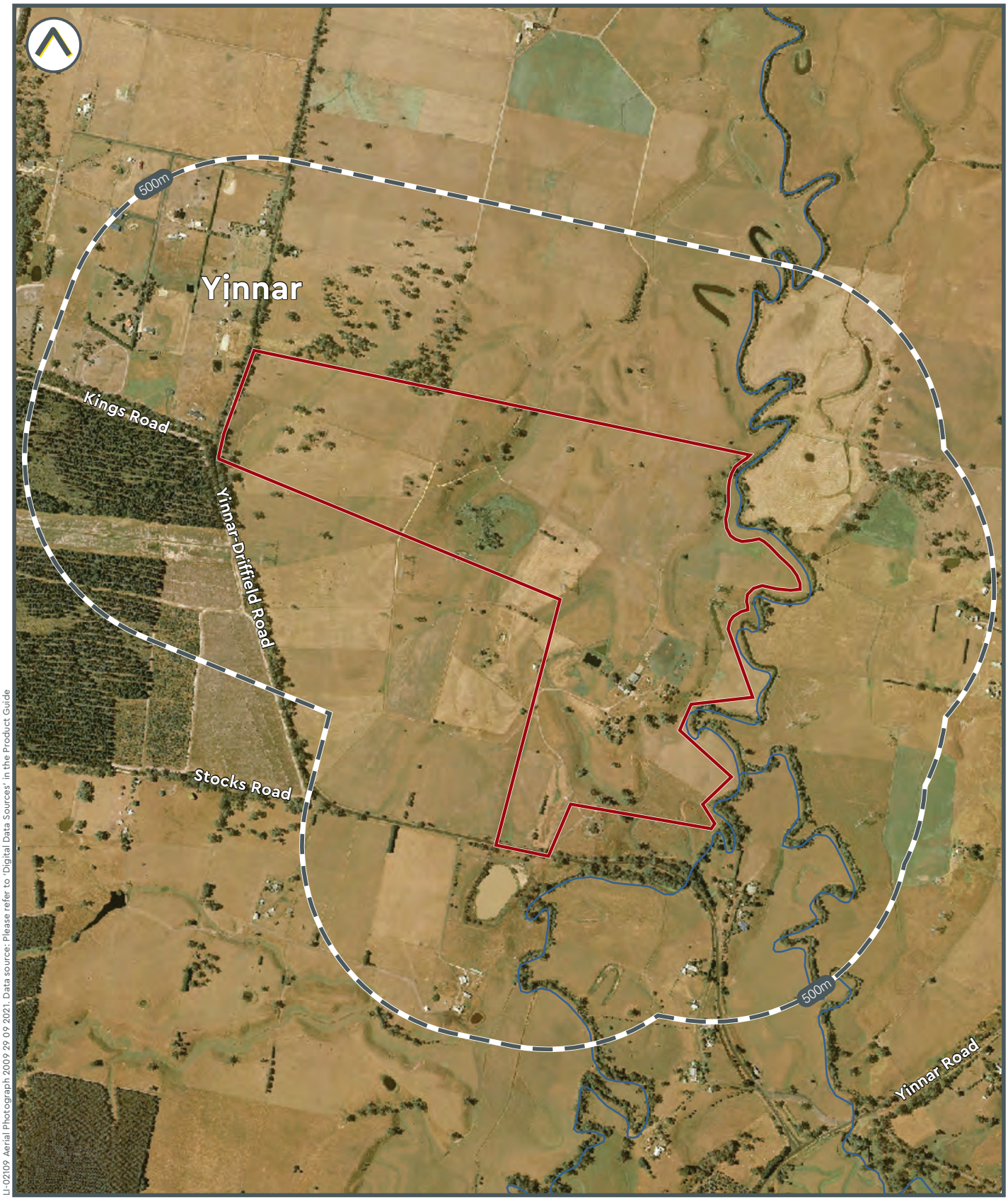
Subject area

0 400m

Land Insight



Historic Aerial Photograph - 2009

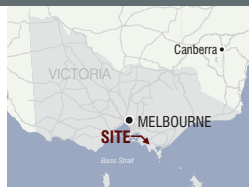


LI-02109 Aerial Photograph 2009 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 400m

Land Insight



Historic Aerial Photograph - 2014

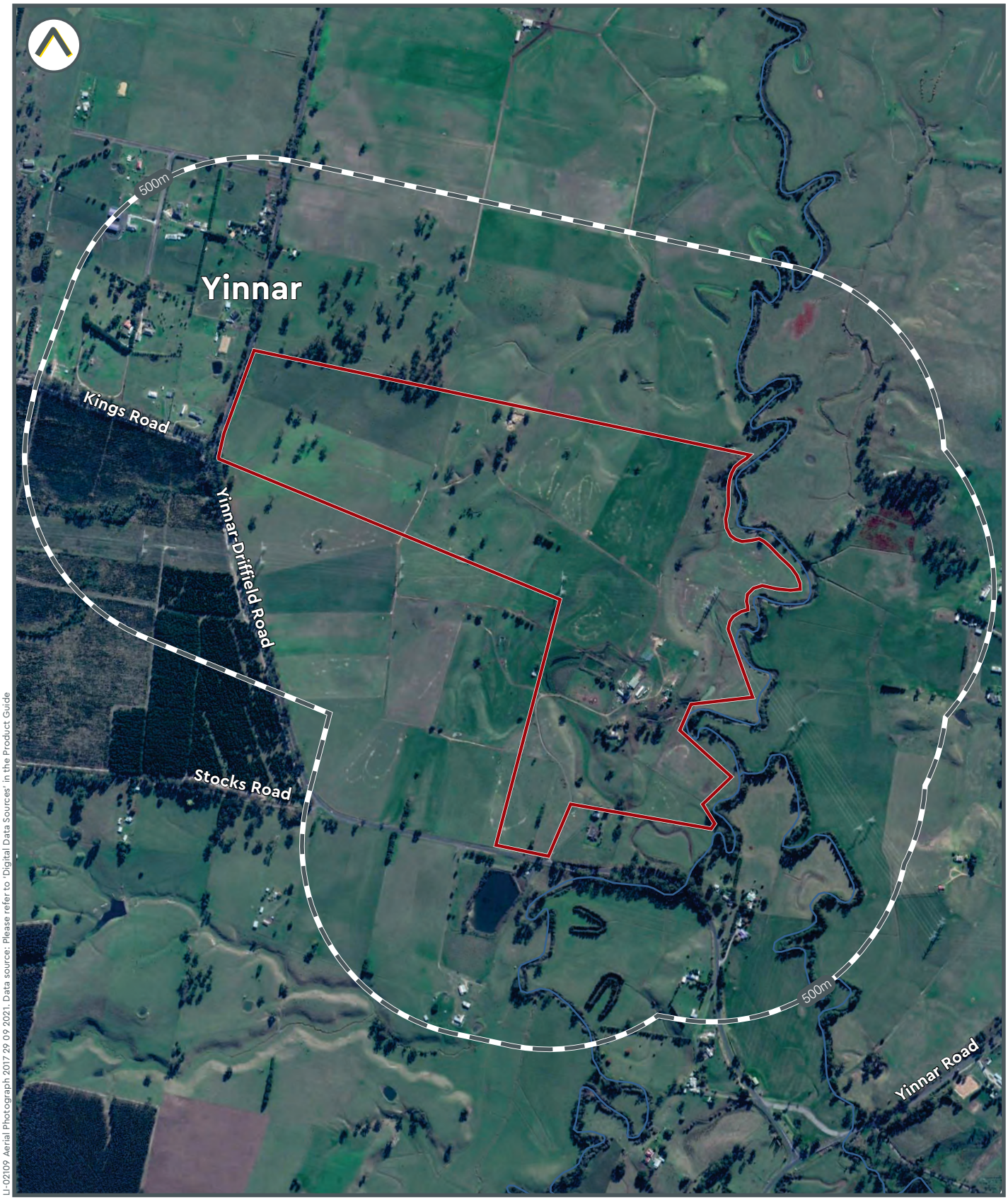
LI-02109 Aerial Photograph 2009 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 400m

Land Insight

Historic Aerial Photograph - 2017



LI-02109 Aerial Photograph 2017 29 09 2021, Data source: Please refer to 'Digital Data Sources' in the Product Guide

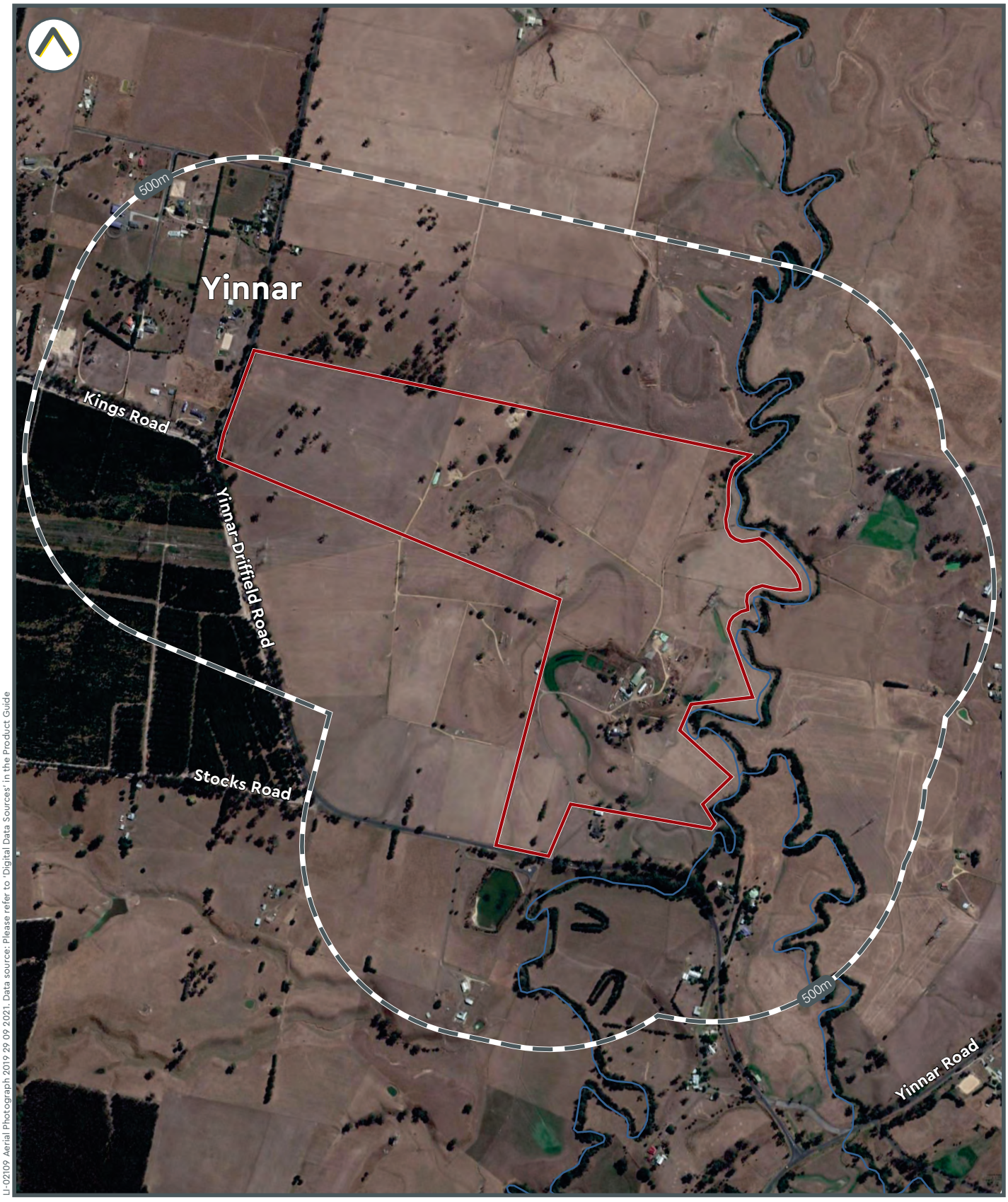
Subject area

0 400m

Land Insight

MAP B10

Historic Aerial Photograph - 2019



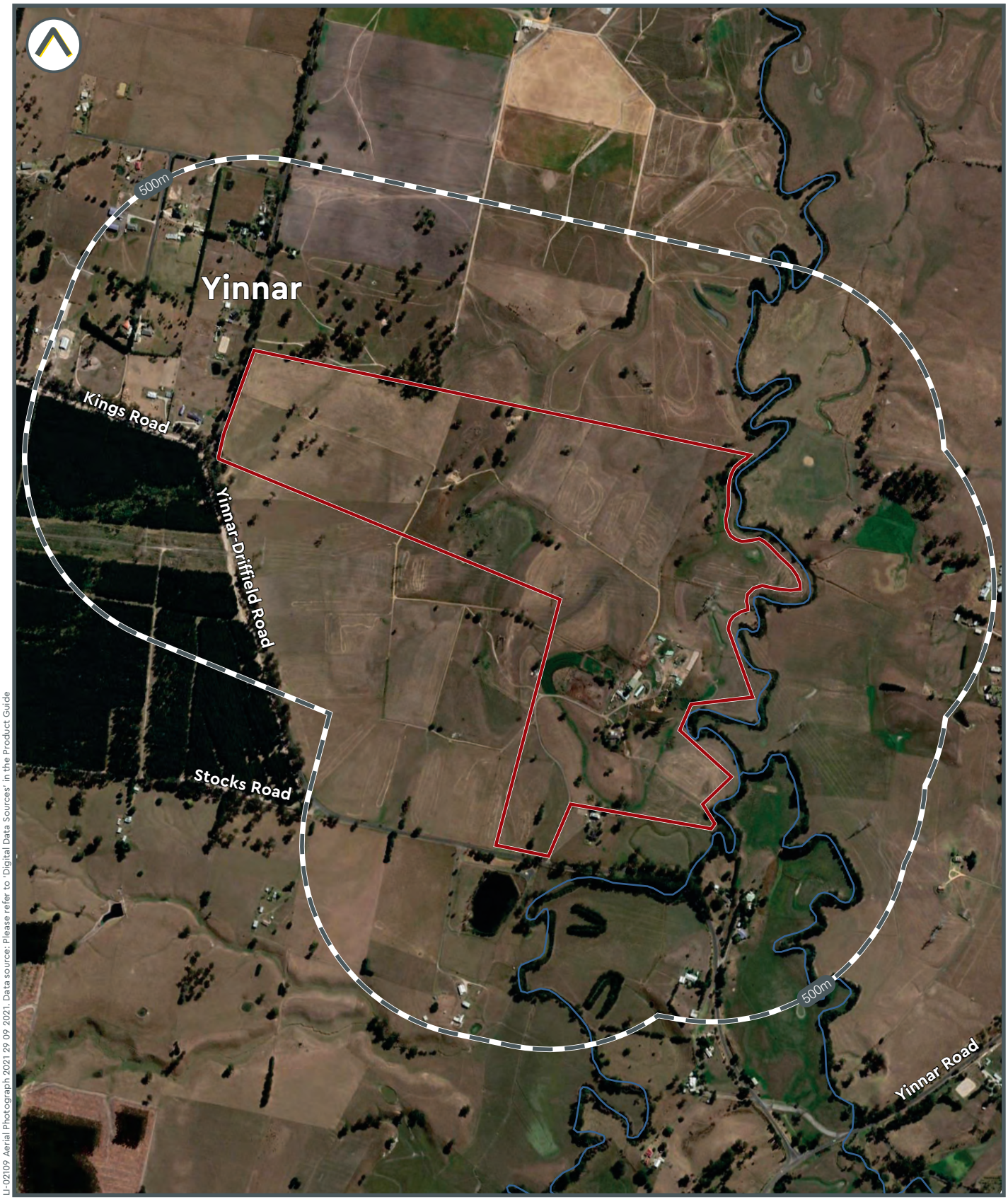
LI-02109 Aerial Photograph 2019 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 400m

Land Insight

Historic Aerial Photograph - 2021



LI-02109 Aerial Photograph 2021 29 09 2021, Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 400m

Land Insight

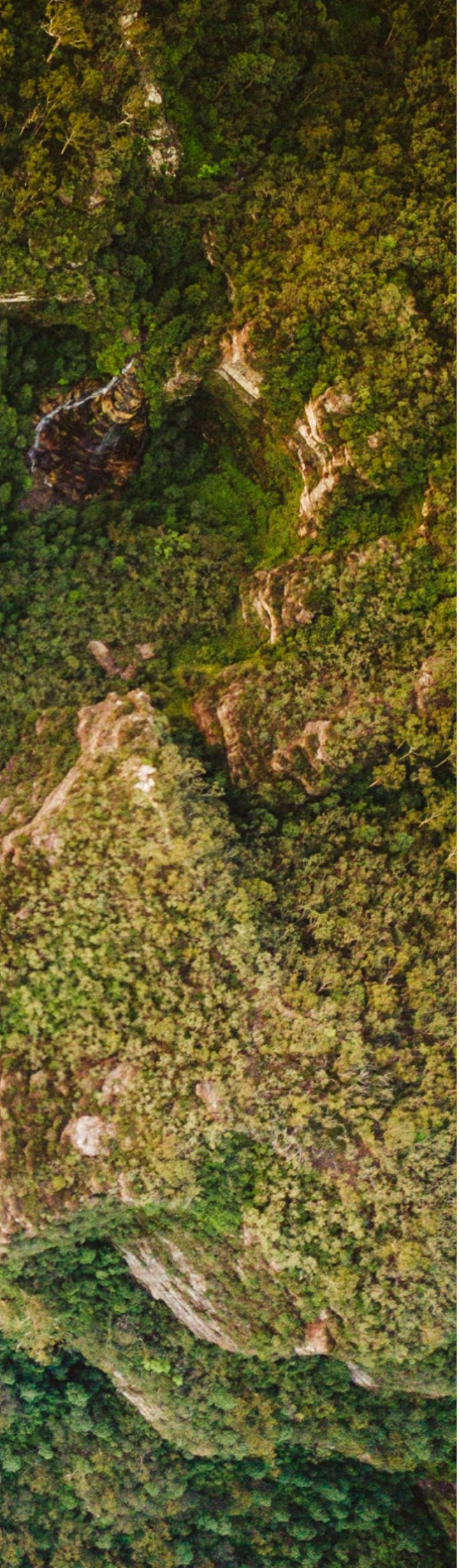
Land Insight RESOURCES

Land Insight

Enviro-Screen

118 McFarlane Road
Hazelwood

28 September 2021



Understanding your report

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

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.

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Index

SUMMARY

Section 1	**PROPERTY SETTING**	**Identified**
Sensitive Receptors Planning Control Heritage Soil and Land Information Geology and Topography		

Section 2	**HYDROGEOLOGY**	**Identified**
Aquifer Groundwater Bores and Other Borehole investigations Groundwater Dependent Ecosystems (GDE) Hydrogeology Units Wetlands		

Section 3	**ENVIRONMENTAL REGISTERS LICENCES AND INCIDENTS**	**Identified**
Contaminated Land Public Register Sites Regulate by Other Jurisdictional Body (Former Gaswork sites / PFAS sites) Licensing and Regulated Sites National Pollutant Inventory (NPI)		

Section 4	**POTENTIALLY CONTAMINATED AREAS**	**Not Identified**
National Liquid Fuel Facilities National Waste Management Facilities		

Section 5	**NATURAL HAZARDS**	**Identified**
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
SUZ1	SPECIAL USE ZONE - SCHEDULE 1	-

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
5011	-	Areas of Cultural Heritage Sensitivity (CHS)	-	20.0	West

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	LfT7-2	f	**Soil Group**	Yellow duplex soils
Description	Low hill (relative relief 30-90m)			
Soil Landscape	FfQ7-1	f	**Soil Group**	Dark earths
Description	Present flood plain			

Salinity

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

Radon

Radon Level	Bq/m^3	8

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	
Prospective Land	Land that has the potential to contain Coastal Acid Sulfate Soils as indicated by geomorphology.
Made Land	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 Soils1 (ASRIS) (CSIRO/NatCASS)	
Probability of Occurrence of ASS[1]	
A	**High Probability of occurrence -** (>70% chance of occurrence in mapping unit)
B	**Low Probability of occurrence** - (6-70% chance of occurrence in mapping unit)
C	**Extremely low probability of occurrence** - (1-5% chance of occurrence in mapping unit)
D	**No probability of occurrence** - (<1% chance of occurrence in mapping unit)
x	**Disturbed ASS[1] terrain -** (ASS[1] material present below urban development).
u	**Unclassified** - (Insufficient information to classify map unit)
Zones	
a	Potential acid sulfate soil material and/or Monosulfidic Black Ooze (MBO).
b, c	Potential acid sulfate soil generally within upper 1 m.
c, d, e	ASS[1] generally within upper 1 m.
f	ASS[1] generally below 1 m from the surface
g	ASS[1], generally below 3 m from the surface.
h	ASS[1] generally within 1 m of the surface.
i, j	ASS[1] generally below 1 m of the surface.
k	ASS[1] material and/or Monosulfidic Black Ooze (MBO).
l, m, n, o, p, q	ASS[1] generally within upper 1 m in wet / riparian areas.
Subscripts to codes	
(a)	Actual acid sulfate soil (AASS) = sulfuric material.
(p)	Potential acid sulfate soil (PASS) = sulfidic material.
(q)	Monosulfidic Black Ooze (MBO) is organic ooze enriched by iron monosulfides.
Confidence levels	
(1)	All necessary analytical and morphological data are available
(2)	Analytical data are incomplete but are sufficient to classify the soil with a reasonable degree of confidence
(3)	No necessary analytical data are available, but confidence is fair, based on a knowledge of similar soils in similar environments
(4)	No necessary analytical data are available, and classifier has little knowledge or experience with ASS, hence classification is provisional

[1]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
	Nlh	Haunted Hills Formation (Nlh): generic	Pliocene to Pleistocene (over-bank stream flow - fluvial [environment])	silt [material] (significant); sand (significant); gravel [material] (significant)	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

Naturally Occurring Asbestos Potential (NOA)

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

Topography

Topography	70 – 80 mAHD

Section 2 Hydrogeology

2.1 HYDROGEOLOGY AND GROUNDWATER BORES

Map 2.1 (2000m Buffer)

	On the Property?	Within Buffer?
Aquifer Type	Porous, extensive highly productive aquifers	Porous, extensive highly productive aquifers
Designated Water Supply Catchments	Not identified	Not identified
Depth to Watertable (m)	<5 - >50	<5 - >50
Wetlands	Not identified	Hazelwood Pondage
Groundwater Salinity (mg/L)	1000	1000

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
101	308234	Unknown	2/05/1949	53.0	53.3				0.0	Onsite
97	308006	Unknown	18/06/1946	106.0	106.1				128.3	South-west
126	308236	Unknown	29/04/1949	76.0	76.2				188.1	South-east
127	308272	Unknown	17/05/1949	20.0	19.8				201.1	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
86	308281	Unknown	1/06/1949	31.0	31.4				225.5	South-west
124	308278	Unknown	25/05/1949	21.0	20.7				240.1	South-east
71	308243	Unknown	12/05/1949	37.0	36.6				304.4	South-west
122	308244	Unknown	10/05/1949	82.0	82.3				305.0	South-east
108	308289	Unknown	31/05/1949	26.0	25.9				309.9	North
95	308908	Unknown	30/04/1964	65.0	64.6				311.2	North
117	308911	Unknown	20/05/1964	104.0	103.9				314.8	North
83	308905	Unknown	23/04/1964	68.0	68.3				316.8	North
129	308231	Unknown	13/04/1949	61.0	61.0				368.9	North-east
137	308271	Unknown	26/05/1949	17.0	16.8				385.2	East
136	308274	Unknown	23/05/1949	23.0	22.6				385.6	South-east
84	308975	Unknown	30/11/1965	9.0	9.1				435.7	North
100	308976	Unknown	30/11/1965	14.0	14.3				445.5	North
142	308264	Unknown	16/05/1949	35.0	34.7				488.1	North-east
131	309033	Unknown	29/06/1967	3.0	3.0				493.4	South-east
68	325251	Unknown	30/11/1965	14.0	13.7				515.0	North-west
94	308246	Unknown	18/05/1949	51.0	51.2				518.0	South-west
132	308258	Unknown	19/05/1949	30.0	30.5				552.0	North-east
154	308889	Unknown	4/09/1961	129.0	128.6				562.7	East
156	308270	Unknown	25/05/1949	24.0	24.4				582.8	East
155	308242	Unknown	18/05/1949	84	83.8				583.1	East
118	308247	Unknown	16/05/1949	91	91.4				588.0	South
106	308981	Unknown	30/11/1965	14	14				593.2	North
143	308259	Unknown	25/05/1949	29	29				627.2	North-east
146	308579	Unknown	14/08/1956	188	187.8				646.6	South-east
158	308232	Unknown	20/04/1949	90	89.6				649.0	East
153	309032	Unknown	29/06/1967	3	3				687.8	South-east
49	325250	Unknown	30/11/1965	16	16.2				697.7	North-west
111	308907	Unknown	8/05/1964	56	55.5				714.1	North
87	308903	Unknown	1/04/1964	76	75.6				716.3	North

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
98	308906	Unknown	4/05/1964	50	49.7				717.2	North
121	308577	Unknown	30/04/1957	57	57.3				719.0	North
128	308915	Unknown	27/05/1964	58	57.6				723.0	North
99	308980	Unknown	30/11/1965	9	9.1				730.6	North
133	308230	Unknown	1/04/1949	34	33.5				744.0	North
159	308260	Unknown	12/05/1949	32	32				772.9	North-east
165	308269	Unknown	26/05/1949	21	21.3				773.1	East
164	308583	Unknown	24/10/1956	224	224				788.7	East
91	308979	Unknown	30/11/1965	9	9.1				801.3	North
148	308257	Unknown	19/05/1949	20	19.8				803.0	North-east
166	308263	Unknown	20/05/1949	21	21.3				831.1	East
141	308581	Unknown	11/05/1964	354	353.9				850.8	South-east
77	308978	Unknown	30/11/1965	13	13.4				869.0	North
161	308229	Unknown	30/03/1949	94	94.5				919.0	North-east
36	325249	Unknown	30/11/1965	10	9.8				921.6	North-west
169	308261	Unknown	23/05/1949	24	24.4				931.1	North-east
120	308985	Unknown	30/11/1965	9	9.1				939.1	South
55	325434	Unknown	18/02/1982	10	10				953.3	North-west
103	309034	Unknown	29/06/1967	3	3				964.0	South
176	308584	Unknown	19/02/1957	246	245.7				974.2	East
51	325223	Unknown	31/12/1920	25	24.7				977.2	South-west
67	308977	Unknown	30/11/1965	13	12.8				977.9	North
175	308578	Unknown	18/03/1957	290	290.5				989.0	East
151	308288	Unknown	18/05/1949	12	12.2				989.6	North-east
177	308706	Unknown	15/04/1959	3	3				994.1	East
37	325438	Unknown	12/03/1982	21	20.6				995.7	North-west
110	308982	Unknown	30/11/1965	9	9.1				1013.4	South
178	308233	Unknown	20/04/1949	143	143.3				1021.4	East
61	325262	Unknown	30/11/1965	11	11.3				1036.4	North
172	308252	Unknown	19/05/1949	22	22.3				1055.9	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
171	308580	Unknown	8/04/1957	142	141.7				1072.1	South-east
162	308250	Unknown	17/05/1949	32	32				1087.8	North-east
179	308262	Unknown	24/05/1949	17	17.4				1094.8	East
135	308297	Unknown	6/12/1948	53	53				1105.2	North
40	325235	Unknown	22/06/1956	42	41.8				1105.8	South-west
54	325258	Unknown	9/11/1965	10	10.4				1106.8	North-west
112	308005	Unknown	18/04/1946	35	34.7				1108.5	North
134	308299	Unknown	6/05/1949	44	43.9				1114.7	North
119	308909	Unknown	5/05/1964	172	171.6				1118.6	North
92	308902	Unknown	19/03/1964	71	71.3				1120.5	North
125	308298	Unknown	4/05/1949	49	49.4				1121.4	North
102	308904	Unknown	7/04/1964	85	85.3				1123.2	North
152	308296	Unknown	2/05/1949	58	57.9				1132.5	North-east
145	308910	Unknown	21/05/1964	65	64.6				1146.0	North-east
76	308912	Unknown	16/04/1964	97	97.2				1148.0	North
24	325248	Unknown	30/11/1965	9	9.1				1165.8	North-west
130	308986	Unknown	30/11/1965	9	9.1				1167.2	South
25	325437	Unknown	5/03/1982	20	20				1171.7	North-west
66	309303	Unknown	4/02/1982	29	29				1191.9	North
35	325436	Unknown	2/03/1982	20	20				1192.2	North-west
44	325257	Unknown	8/11/1965	9	9.4				1193.4	North-west
60	325420	Unknown	3/12/1981	20	19.5				1194.2	North
59	325419	Unknown	30/11/1981	38	37.5				1197.3	North
173	308249	Unknown	18/05/1949	24	24.4				1197.9	North-east
167	308582	Unknown	14/05/1957	110	110.3				1199.7	South-east
181	308228	Unknown	24/03/1949	76	76.2				1207.2	North-east
107	308983	Unknown	30/11/1965	9	9.1				1233.2	South
88	309322	Unknown	14/05/1982	13	13				1236.1	North
39	325256	Unknown	30/11/1965	12	12.2				1244.5	North-west
163	308295	Unknown	17/11/1948	78	77.7				1260.8	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
50	325245	Unknown	21/04/1964	87	86.9				1306.8	North
89	308566	Unknown	11/09/1963	201	201.2				1308.3	South
38	325435	Unknown	1/03/1982	20	20				1314.0	North-west
113	308913	Unknown	4/05/1964	36	36				1314.2	North
72	309302	Unknown	28/01/1982	37	37				1323.8	North
138	308914	Unknown	29/04/1964	43	43				1326.6	North
183	308248	Unknown	20/05/1949	26	25.9				1341.3	North-east
149	308916	Unknown	7/05/1964	31	31.1				1341.7	North
70	309317	Unknown	24/05/1982	20	20				1358.6	North
174	308294	Unknown	13/01/1949	19	18.6				1362.3	North-east
15	325225	Unknown	13/07/1946	59	59.1				1372.0	West
157	308919	Unknown	27/05/1964	31	30.8				1373.3	North-east
194	308565	Unknown	21/11/1963	267	267.3				1386.6	East
75	309325	Unknown	22/06/1982	19	19				1408.1	North
16	325247	Unknown	30/11/1965	9	9.1				1410.4	West
180	321166	Unknown	20/03/1920	9	9.4				1411.1	South-east
144	308987	Unknown	30/11/1965	9	9.1				1411.4	South-east
114	308917	Unknown	15/05/1964	30	30.5				1416.2	North
139	308918	Unknown	21/05/1964	30	30.5				1428.0	North
199	309101	Unknown	29/04/1971	9	9.1				1434.6	East
200	309094	Unknown	7/11/1970	18	18.3				1436.5	East
46	325430	Unknown	18/01/1982	25	25				1442.5	North
28	325255	Unknown	30/11/1965	18	17.7				1447.4	North-west
42	325407	Unknown	25/11/1981	15	15				1449.5	North-west
188	308007	Unknown	30/04/1946	130	129.5				1453.1	South-east
57	325405	Unknown	20/11/1981	14	14				1458.5	North
17	325317	Unknown	10/09/1980	201	201				1461.4	North-west
109	308984	Unknown	30/11/1965	9	9.1				1463.2	South
93	309321	Unknown	3/05/1982	16	16				1470.8	North
201	309003	Unknown	30/11/1965	9	9.1				1476.7	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
65	325429	Unknown	12/01/1982	17	17				1478.3	North
189	308245	Unknown	24/05/1949	26	25.9				1484.8	North-east
184	308176	Unknown	5/04/1948	88	87.8				1491.3	North-east
79	309301	Unknown	17/12/1981	47	47				1505.7	North
202	307930	Unknown	23/02/1944	238	238				1510.0	East
115	308575	Unknown	15/05/1957	75	74.7				1516.3	North
78	309320	Unknown	24/05/1982	20	20				1516.8	North
140	308576	Unknown	3/04/1957	72	72.5				1526.6	North
96	308574	Unknown	26/04/1957	77	77.1				1526.9	North
13	325222	Unknown	31/12/1920	18	18.3				1547.4	South-west
203	308175	Unknown	23/12/1948	209	209.1				1553.5	East
195	309305	Unknown	1/03/1982	345	344.7				1560.9	South-east
190	WRK065346	Stock and Domestic	19/10/2006	100	100				1572.4	South-east
196	309315	Unknown	25/03/1982	324	324				1578.8	South-east
197	309336	Unknown	2/08/1982	346	346.5				1578.8	South-east
53	325428	Unknown	6/01/1982	18	18				1587.6	North
207	309085	Unknown	19/10/1970	15	15.2				1589.3	East
45	325406	Unknown	18/11/1981	15	15				1591.1	North
18	325254	Unknown	30/11/1965	9	9.1				1596.9	North-west
69	325233	Unknown	3/07/1956	47	47.2				1599.1	North
7	325315	Unknown	23/08/1980	193	193				1619.0	West
208	309084	Unknown	7/11/1970	16	15.5				1626.0	East
4	325221	Unknown	31/12/1920	28	28				1627.7	West
209	309093	Unknown	20/11/1970	18	18.3				1628.2	East
191	308293	Unknown	12/01/1949	20	19.8				1629.7	North-east
34	325424	Unknown	8/12/1981	12	12				1634.1	North-west
168	308235	Unknown	3/12/1948	50	50				1637.4	North-east
185	308220	Unknown	16/12/1948	14	14				1638.8	North-east
9	325234	Unknown	15/06/1956	18	17.7				1647.0	South-west
90	309323	Unknown	10/05/1982	28	28				1648.1	North

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	325246	Unknown	30/11/1965	9	9.1				1654.0	West
80	309324	Unknown	22/06/1982	30	30				1655.2	North
5	325264	Unknown	28/06/1967	3	3				1657.5	West
160	308988	Unknown	30/11/1965	9	8.8				1659.4	South-east
204	308177	Unknown	6/01/1949	22	22.3				1661.1	North-east
8	325314	Unknown	3/10/1980	80	80				1662.2	North-west
56	325433	Unknown	16/02/1982	15	15				1673.8	North
74	309300	Unknown	18/01/1982	34	34				1677.6	North
29	325423	Unknown	4/12/1981	10	10				1694.0	North-west
64	325404	Unknown	1/12/1981	15	15				1696.9	North
19	325226	Unknown	12/02/1946	32	31.7				1717.8	North-west
81	334550	Unknown	1/08/1946	167	167				1718.0	South
33	325408	Unknown	16/11/1981	10	10				1720.3	North-west
105	334615	Unknown	30/11/1965	9	9.1				1723.6	South
82	WRK987433	Stock and Domestic	15/10/2008	48	48				1737.1	South
48	325432	Unknown	16/02/1982	10	10				1738.8	North
58	334578	Unknown	13/11/1963	157	157				1751.7	South-west
23	325422	Unknown	3/12/1981	10	10				1754.6	North-west
193	308219	Unknown	16/12/1948	18	18.3				1770.9	North-east
31	325425	Unknown	9/12/1981	15	15				1771.8	North-west
205	308004	Unknown	9/04/1946	187	186.8				1771.9	North-east
43	325232	Unknown	5/07/1956	50	50.3				1773.6	North
211	309092	Unknown	21/12/1970	31	30.8				1780.3	East
212	309339	Unknown	22/11/1982	32	31.5				1780.3	East
213	308585	Unknown	4/12/1956	228	228				1781.2	East
214	309098	Unknown	3/02/1971	6	6.1				1787.7	East
11	325311	Unknown	29/07/1980	233	233.3				1796.7	North-west
182	WRK974998	Unknown		75	75				1805.1	South-east
186	308221	Unknown	10/12/1948	56	55.5				1808.9	North-east
10	325253	Unknown	30/11/1965	9	9.1				1811.7	North-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
52	325403	Unknown	27/11/1981	11	11				1814.6	North
22	325400	Unknown	1/12/1981	10	10				1835.6	North-west
192	307901	Unknown	31/12/1920	15	15.2				1848.5	South-east
12	325263	Unknown	28/06/1967	3	3				1852.6	North-west
215	309004	Unknown	30/11/1965	9	9.1				1853.1	East
30	325427	Unknown	15/12/1981	10	10				1857.0	North-west
63	324053	Unknown	7/11/1968	14	14				1859.6	North
62	324503	Unknown	11/02/1982	36	36				1872.8	North
32	325421	Unknown	3/12/1981	10	10				1896.6	North-west
41	325402	Unknown	17/02/1982	10	10				1909.4	North
206	308206	Unknown	9/12/1948	20	19.8				1909.8	North-east
170	308989	Unknown	30/11/1965	9	9.1				1911.2	South-east
21	325426	Unknown	10/12/1981	10	10				1918.5	North-west
216	309091	Unknown	2/11/1970	18	18.3				1921.5	East
3	325318	Unknown	27/08/1981	62	61.5				1922.8	North-west
198	308218	Unknown	15/12/1948	17	17.1				1923.8	North-east
47	324502	Unknown	19/02/1982	30	30				1924.1	North
123	308571	Unknown	19/09/1956	91	90.8				1927.8	North
219	309100	Unknown	28/03/1971	15	15.2				1928.8	East
147	308251	Unknown	28/01/1949	27	27.4				1930.5	North
217	WRK047049	Irrigation	12/11/2008	50	50			2	1930.9	East
210	308178	Unknown	11/01/1949	47	46.9				1932.4	North-east
150	308572	Unknown	23/05/1957	72	72.2				1933.1	North
2	325355	Unknown	30/01/1981	63	63				1936.1	North-west
14	325312	Unknown	16/02/1981	44	44				1942.2	North-west
218	309059	Unknown	20/02/1970	16	15.5				1947.2	East
104	334616	Unknown	30/11/1965	9	9.1				1953.7	South
116	309042	Unknown	19/11/1968	9	8.8				1960.6	North
220	WRK988669	Unknown		25	25				1972.3	East
1	325316	Unknown	25/09/1980	208	208				1976.6	North-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
221	309058	Unknown	3/03/1970	15	15.2				1986.2	East
73	322510	Unknown	29/05/1956	55	55.2				1990.1	North
187	308222	Unknown	21/12/1948	36	36				1993.1	North-east
20	325401	Unknown	12/11/1981	11	11				1994.4	North-west
26	325231	Unknown	27/02/1957	50	50.3				1994.4	North-west
27	325309	Unknown	5/03/1973	31	30.8				1994.4	North-west
85	324511	Unknown	15/03/1982	17	17				1995.2	North

Groundwater Bores Driller Lithology Details

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
308234	#N/A	0.0	Onsite
308006	#N/A	128.3	South-west
308236	#N/A	188.1	South-east
308272	#N/A	201.1	North-east
308281	#N/A	225.5	South-west
308278	#N/A	240.1	South-east
308243	#N/A	304.4	South-west
308244	#N/A	305.0	South-east
308289	#N/A	309.9	North
308908	#N/A	311.2	North
308911	#N/A	314.8	North
308905	#N/A	316.8	North
308231	#N/A	368.9	North-east
308271	#N/A	385.2	East
308274	#N/A	385.6	South-east
308975	#N/A	435.7	North
308976	#N/A	445.5	North
308264	#N/A	488.1	North-east
309033	#N/A	493.4	South-east
325251	#N/A	515.0	North-west
308246	#N/A	518.0	South-west
308258	#N/A	552.0	North-east
308889	#N/A	562.7	East
308270	#N/A	582.8	East
308242	#N/A	583.1	East
308247	#N/A	588.0	South
308981	#N/A	593.2	North
308259	#N/A	627.2	North-east

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
308579	#N/A	646.6	South-east
308232	#N/A	649.0	East
309032	#N/A	687.8	South-east
325250	#N/A	697.7	North-west
308907	#N/A	714.1	North
308903	#N/A	716.3	North
308906	#N/A	717.2	North
308577	#N/A	719.0	North
308915	#N/A	723.0	North
308980	#N/A	730.6	North
308230	#N/A	744.0	North
308260	#N/A	772.9	North-east
308269	#N/A	773.1	East
308583	#N/A	788.7	East
308979	#N/A	801.3	North
308257	#N/A	803.0	North-east
308263	#N/A	831.1	East
308581	#N/A	850.8	South-east
308978	#N/A	869.0	North
308229	#N/A	919.0	North-east
325249	#N/A	921.6	North-west
308261	#N/A	931.1	North-east
308985	#N/A	939.1	South
325434	#N/A	953.3	North-west
309034	#N/A	964.0	South
308584	#N/A	974.2	East
325223	#N/A	977.2	South-west
308977	#N/A	977.9	North
308578	#N/A	989.0	East
308288	#N/A	989.6	North-east
308706	#N/A	994.1	East

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
325438	#N/A	995.7	North-west
308982	#N/A	1013.4	South
308233	#N/A	1021.4	East
325262	#N/A	1036.4	North
308252	#N/A	1055.9	North-east
308580	#N/A	1072.1	South-east
308250	#N/A	1087.8	North-east
308262	#N/A	1094.8	East
308297	#N/A	1105.2	North
325235	#N/A	1105.8	South-west
325258	#N/A	1106.8	North-west
308005	#N/A	1108.5	North
308299	#N/A	1114.7	North
308909	#N/A	1118.6	North
308902	#N/A	1120.5	North
308298	#N/A	1121.4	North
308904	#N/A	1123.2	North
308296	#N/A	1132.5	North-east
308910	#N/A	1146.0	North-east
308912	#N/A	1148.0	North
325248	#N/A	1165.8	North-west
308986	#N/A	1167.2	South
325437	#N/A	1171.7	North-west
309303	#N/A	1191.9	North
325436	#N/A	1192.2	North-west
325257	#N/A	1193.4	North-west
325420	#N/A	1194.2	North
325419	#N/A	1197.3	North
308249	#N/A	1197.9	North-east
308582	#N/A	1199.7	South-east
308228	#N/A	1207.2	North-east

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
308983	#N/A	1233.2	South
309322	#N/A	1236.1	North
325256	#N/A	1244.5	North-west
308295	#N/A	1260.8	North-east
325245	#N/A	1306.8	North
308566	#N/A	1308.3	South
325435	#N/A	1314.0	North-west
308913	#N/A	1314.2	North
309302	#N/A	1323.8	North
308914	#N/A	1326.6	North
308248	#N/A	1341.3	North-east
308916	#N/A	1341.7	North
309317	#N/A	1358.6	North
308294	#N/A	1362.3	North-east
325225	#N/A	1372.0	West
308919	#N/A	1373.3	North-east
308565	#N/A	1386.6	East
309325	#N/A	1408.1	North
325247	#N/A	1410.4	West
321166	#N/A	1411.1	South-east
308987	#N/A	1411.4	South-east
308917	#N/A	1416.2	North
308918	#N/A	1428.0	North
309101	#N/A	1434.6	East
309094	#N/A	1436.5	East
325430	#N/A	1442.5	North
325255	#N/A	1447.4	North-west
325407	#N/A	1449.5	North-west
308007	#N/A	1453.1	South-east
325405	#N/A	1458.5	North
325317	#N/A	1461.4	North-west

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
308984	#N/A	1463.2	South
309321	#N/A	1470.8	North
309003	#N/A	1476.7	East
325429	#N/A	1478.3	North
308245	#N/A	1484.8	North-east
308176	#N/A	1491.3	North-east
309301	#N/A	1505.7	North
307930	#N/A	1510.0	East
308575	#N/A	1516.3	North
309320	#N/A	1516.8	North
308576	#N/A	1526.6	North
308574	#N/A	1526.9	North
325222	#N/A	1547.4	South-west
308175	#N/A	1553.5	East
309305	#N/A	1560.9	South-east
WRK065346	0m-56m Clay 56m-57m Clayey Sands 57m-60m Clayey Sands 60m-70.5m Clays 70.5m-73.7m Sand 73.7m-80m Clays	1572.4	South-east
309315	#N/A	1578.8	South-east
309336	#N/A	1578.8	South-east
325428	#N/A	1587.6	North
309085	#N/A	1589.3	East
325406	#N/A	1591.1	North
325254	#N/A	1596.9	North-west
325233	#N/A	1599.1	North
325315	#N/A	1619.0	West
309084	#N/A	1626.0	East
325221	#N/A	1627.7	West
309093	#N/A	1628.2	East
308293	#N/A	1629.7	North-east
325424	#N/A	1634.1	North-west

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
308235	#N/A	1637.4	North-east
308220	#N/A	1638.8	North-east
325234	#N/A	1647.0	South-west
309323	#N/A	1648.1	North
325246	#N/A	1654.0	West
309324	#N/A	1655.2	North
325264	#N/A	1657.5	West
308988	#N/A	1659.4	South-east
308177	#N/A	1661.1	North-east
325314	#N/A	1662.2	North-west
325433	#N/A	1673.8	North
309300	#N/A	1677.6	North
325423	#N/A	1694.0	North-west
325404	#N/A	1696.9	North
325226	#N/A	1717.8	North-west
334550	#N/A	1718.0	South
325408	#N/A	1720.3	North-west
334615	#N/A	1723.6	South
WRK987433	#N/A	1737.1	South
325432	#N/A	1738.8	North
334578	#N/A	1751.7	South-west
325422	#N/A	1754.6	North-west
308219	#N/A	1770.9	North-east
325425	#N/A	1771.8	North-west
308004	#N/A	1771.9	North-east
325232	#N/A	1773.6	North
309092	#N/A	1780.3	East
309339	#N/A	1780.3	East
308585	#N/A	1781.2	East
309098	#N/A	1787.7	East
325311	#N/A	1796.7	North-west

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
WRK974998	#N/A	1805.1	South-east
308221	#N/A	1808.9	North-east
325253	#N/A	1811.7	North-west
325403	#N/A	1814.6	North
325400	#N/A	1835.6	North-west
307901	#N/A	1848.5	South-east
325263	#N/A	1852.6	North-west
309004	#N/A	1853.1	East
325427	#N/A	1857.0	North-west
324053	#N/A	1859.6	North
324503	#N/A	1872.8	North
325421	#N/A	1896.6	North-west
325402	#N/A	1909.4	North
308206	#N/A	1909.8	North-east
308989	#N/A	1911.2	South-east
325426	#N/A	1918.5	North-west
309091	#N/A	1921.5	East
325318	#N/A	1922.8	North-west
308218	#N/A	1923.8	North-east
324502	#N/A	1924.1	North
308571	#N/A	1927.8	North
309100	#N/A	1928.8	East
308251	#N/A	1930.5	North
WRK047049	#N/A	1930.9	East
308178	#N/A	1932.4	North-east
308572	#N/A	1933.1	North
325355	#N/A	1936.1	North-west
325312	#N/A	1942.2	North-west
309059	#N/A	1947.2	East
334616	#N/A	1953.7	South
309042	#N/A	1960.6	North

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
WRK988669	#N/A	1972.3	East
325316	#N/A	1976.6	North-west
309058	#N/A	1986.2	East
322510	#N/A	1990.1	North
308222	#N/A	1993.1	North-east
325401	#N/A	1994.4	North-west
325231	#N/A	1994.4	North-west
325309	#N/A	1994.4	North-west
324511	#N/A	1995.2	North

2.2 HYDROGEOLOGY AND OTHER BOREHOLES

Map 2.2 (500m Buffer)

	On the Property?	Within Buffer?
Groundwater Management Areas	ROSEDALE GROUNDWATER MANAGEMENT AREA - Zone 1	ROSEDALE GROUNDWATER MANAGEMENT AREA - Zone 1
Hydrogeologic Unit	Surficial Sediment Aquifer (porous media - unconsolidated) Upper Tertiary/Quaternary Aquitard (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	Low 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
308234	Coal	State Electricity Commission	State Electricity Commission of Victoria	02/05/1949	53.3	0.0	Onsite
308006	Coal	State Electricity Commission	State Electricity Commission of Victoria	18/06/1946	106.1	128.4	South-west
308236	Coal	State Electricity Commission	State Electricity Commission of Victoria	29/04/1949	76.2	182.8	South-east
308272	Coal	State Electricity Commission	State Electricity Commission of Victoria	17/05/1949	19.8	203.0	North-east
308281	Coal	State Electricity Commission	State Electricity Commission of Victoria	01/06/1949	31.4	224.3	South-west

Borehole ID	Purpose	Project	Client/ License	Date Drilled	Depth (m)	Distance (m)	Direction
308278	Coal	State Electricity Commission	State Electricity Commission of Victoria	25/05/1949	20.7	237.7	South-east
308243	Coal	State Electricity Commission	State Electricity Commission of Victoria	12/05/1949	36.6	308.2	South-west
308244	Coal	State Electricity Commission	State Electricity Commission of Victoria	10/05/1949	82.3	309.5	South-east
308908	Coal	State Electricity Commission	State Electricity Commission of Victoria	30/04/1964	64.6	311.0	North
308911	Coal	State Electricity Commission	State Electricity Commission of Victoria	20/05/1964	103.9	312.9	North
308289	Coal	State Electricity Commission	State Electricity Commission of Victoria	31/05/1949	25.9	318.3	North
308905	Coal	State Electricity Commission	State Electricity Commission of Victoria	23/04/1964	68.3	322.3	North
308231	Coal	State Electricity Commission	State Electricity Commission of Victoria	13/04/1949	61.0	361.3	North-east
308274	Coal	State Electricity Commission	State Electricity Commission of Victoria	23/05/1949	22.6	378.7	South-east
308271	Coal	State Electricity Commission	State Electricity Commission of Victoria	26/05/1949	16.8	387.1	East
308975	Coal	State Electricity Commission	State Electricity Commission of Victoria	30/11/1965	9.1	437.8	North
308976	Coal	State Electricity Commission	State Electricity Commission of Victoria	30/11/1965	14.3	444.2	North
308264	Coal	State Electricity Commission	State Electricity Commission of Victoria	16/05/1949	34.7	484.9	North-east
309033	Coal	State Electricity Commission	State Electricity Commission of Victoria	29/06/1967	3.0	497.2	South-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
90010271	Brodribb RD, HAZELWOOD	Former Industrial Site	980.0	East
90010273	Brodribb RD, HAZELWOOD	Former Industrial Site	980.0	East
90010255	Brodribb RD, HAZELWOOD	Former Industrial Site	980.0	East
90010272	Brodribb RD, HAZELWOOD	Former Industrial Site	980.0	East

Table 3.1.1 Sections 53X and 53V of the Environment Protection Act 1970	
EPA Types of Environmental Audits	
53X Audits	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.
53V Audits	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

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

Table 3.3.1 EPA Regulatory Instruments Explanation	
Approvals	
Works approval is required for industrial and waste management activities that have the potential for significant environmental impact.	
Works Approval	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.
30A Approval	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	
Remedial notices are served to prevent or remedy a range of non-compliances or likely non-compliances. Remedial notices are not punitive measures.	
Clean Up Notice	Clean up notices (CUN) are issued under section 62A of the *Environment Protection Act 1970*. 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.
Minor Works Pollution	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.
Pollution Abatement Notice	Pollution abatement notices are issued under section 31A of the *Environment Protection Act 1970*. 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.
Post closure pollution abatement notices (PC PAN)	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	
Licences	
EPA licence is required for all scheduled premises. It allows the licence-holder to operate and sets conditions that they must meet.	
Licence	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.
Amalgamated Licence	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[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

1905 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

1915 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

1925 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

1935 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

1940 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

1945 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

1955 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

1965 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

1970 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

1975 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

1980 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

1990 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

2005 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

2010 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	Distance (m)	Direction
Not identified	-	-	-	-	-

2015 Historical Business Data

Activity	Name	Address	Positional accuracy[1]	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	*When street address and names fully match.*
Street	Located to the street centroid	*When street names match but no exact address was found. Location is approximate.*
Place	Located to the structure, building or complex	*When building, residential complex or structure name match but no exact address was found. Location is approximate.*
Suburb	Located to the suburb area	*When suburb name match but no exact address was found. Location is approximate.*

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.

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
Land Subject to Inundation Overlay	Yes	Yes

Land Insight

Tower Three, Level 24
300 Barangaroo Avenue
Sydney NSW 2000 Australia
02 8067 8870
info@liresources.com.au
www.liresrouces.com.au

Appendix A

REPORT MAPS

PROPERTY SETTING

MAP 1.1

Subject Area and Sensitive Receptors

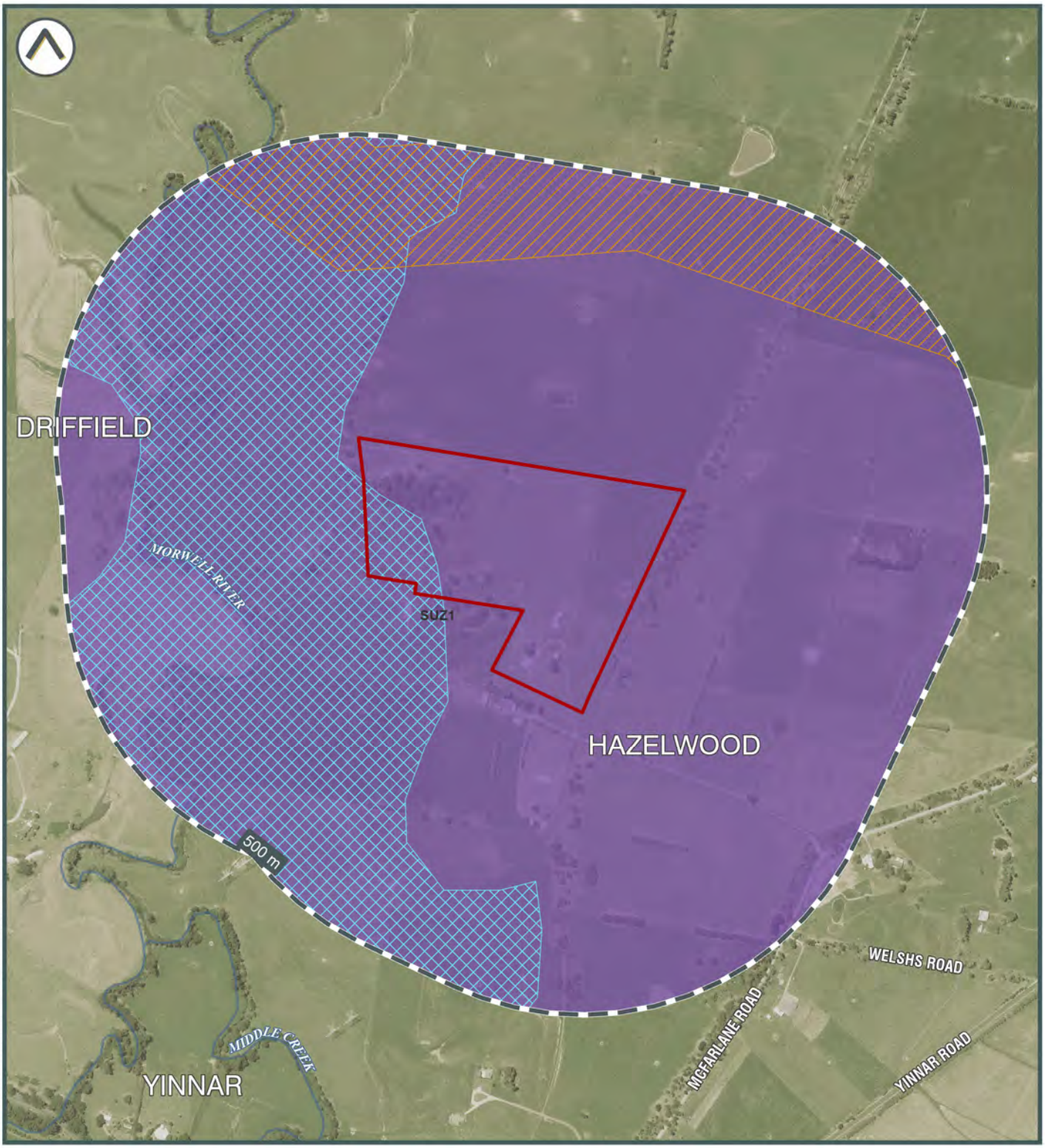
Subject area

0 50 100 150 200 250m

Land Insight

MAP 1.2

Planning Controls



Subject area

Planning Scheme
- DDO
- LSIO

Zoning
- SUZ1 | Special Use Zone – Schedule 1

0 100 200 300 400 500m

Land Insight

Heritage

Subject area

Victorian Heritage Inventory (VHI)
Areas of Cultural Heritage Sensitivity (CHS)
Victorian Heritage Register (VHR)

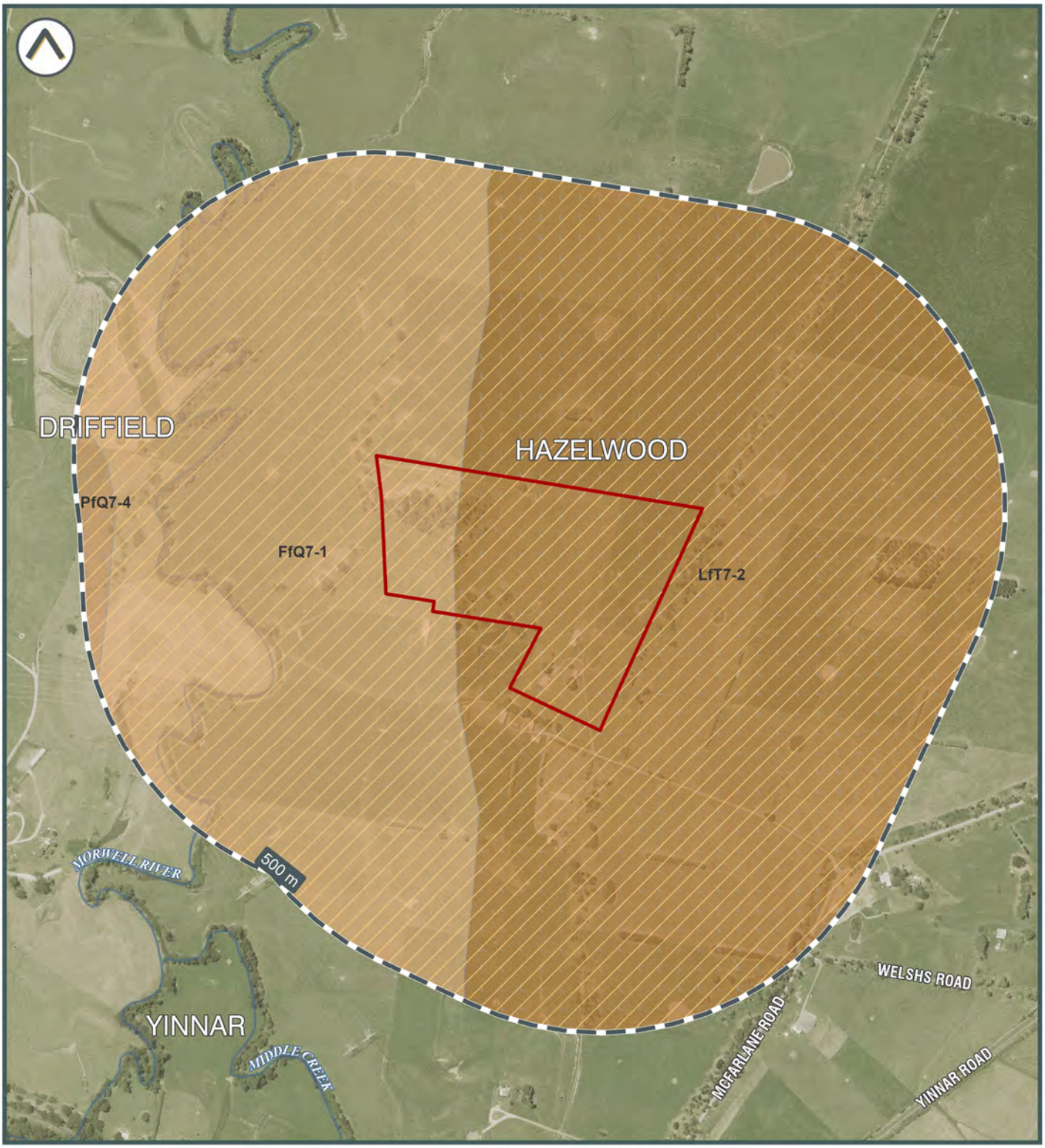
Commonwealth Heritage List (CHL)
National Heritage List (NHL)
World Heritage Area (WHA)

0 50 100 150 200 250m

Land Insight

MAP 1.4a

Soil Landscape and Salinity



Subject area

Salinity Hazard
- Low

Soil Landscape
- FfQ7-1,Present flood plain
- LfT7-2,Low hill (relative relief 30-90m)
- PfQ7-4,Plain above flood level (relative relief <9m)

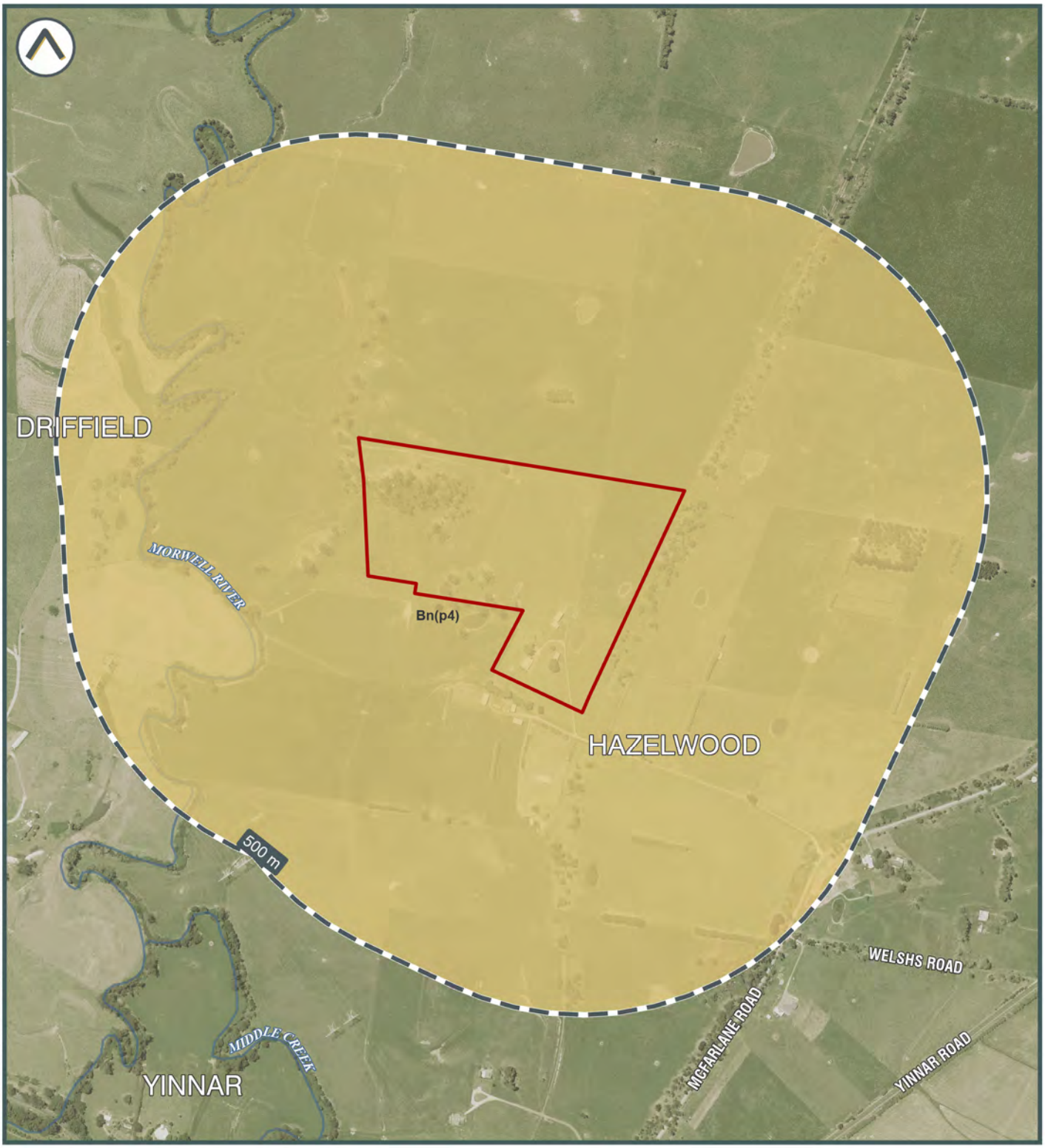
Radon Level (Bq/m3)
- 5-19

0 100 200 300 400 500m

Land Insight

Acid Sulfate Soils

MAP 1.4b



Subject area

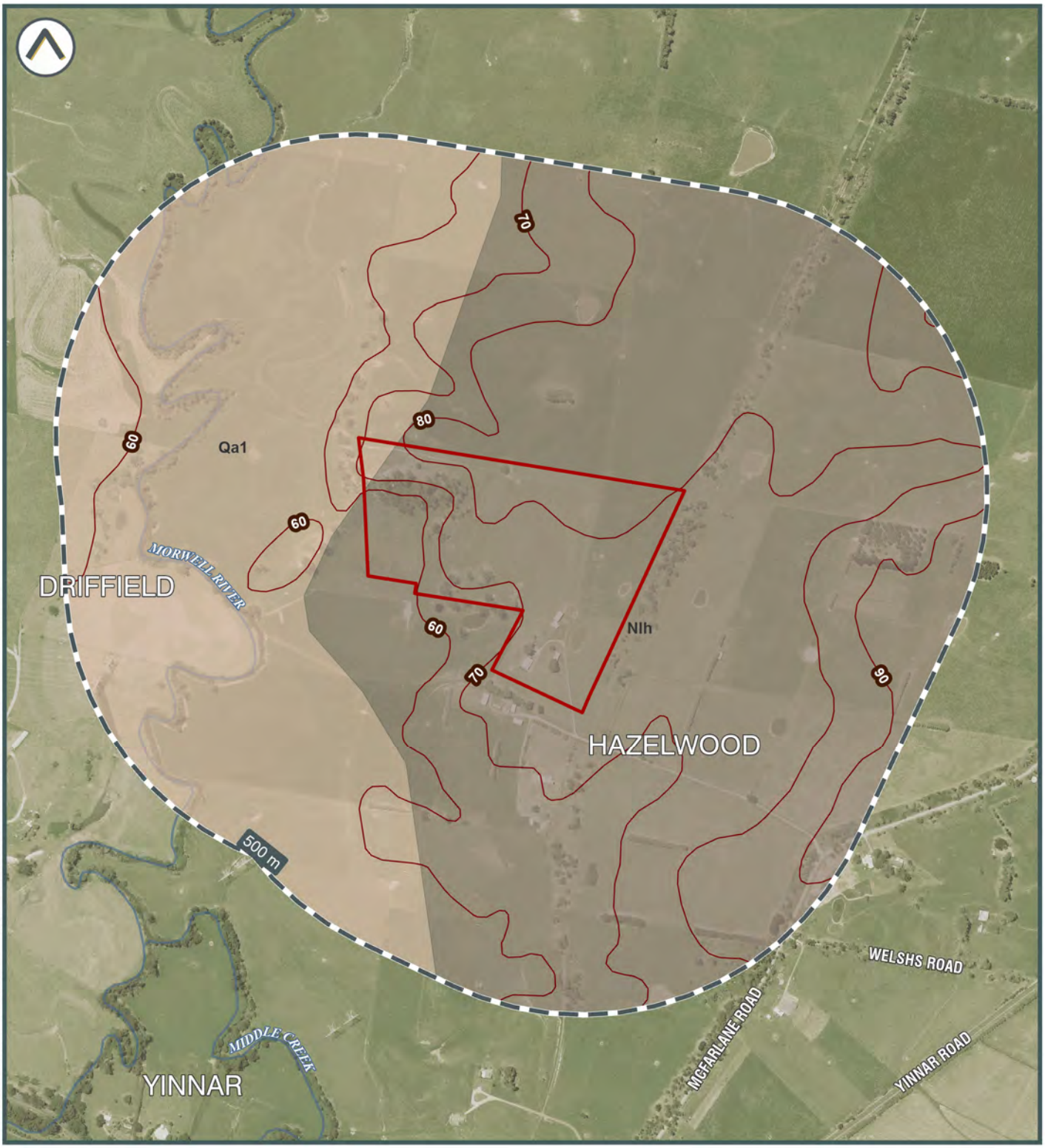
ASRIS Atlas of Australian Sulfate Soils
Bn(p4) | ASS in inland lakes, waterways, wetlands and riparian zones

0 100 200 300 400 500m

Land Insight

MAP 1.5

Geology and Topography



Subject area
Topographic contour (m)

1:250,000 Geological Units

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

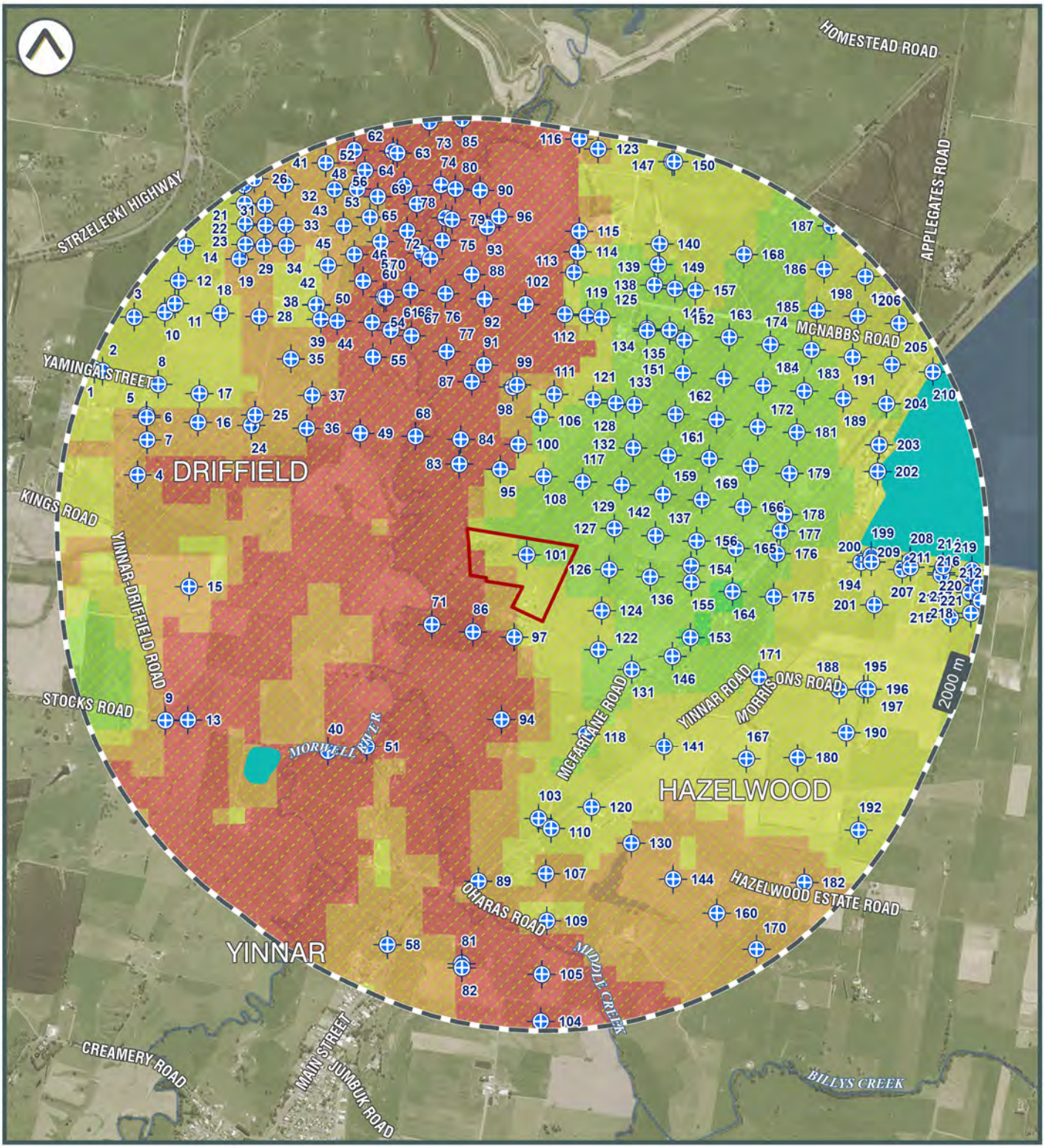
Qa1 | Gravel, sand, silt: variably sorted and rounded; generally unconsolidated; includes deposits of low terraces; alluvial floodplain deposits

0 100 200 300 400 500m

Land Insight

MAP 2.1

Hydrogeology and Groundwater Boreholes



Subject area

Groundwater bores

Wetlands

Groundwater salinity (mg/l)

500 – 1,000

Depth to Watertable (m)

<5

5–10

10–20

20–50

>50

Aquifer type

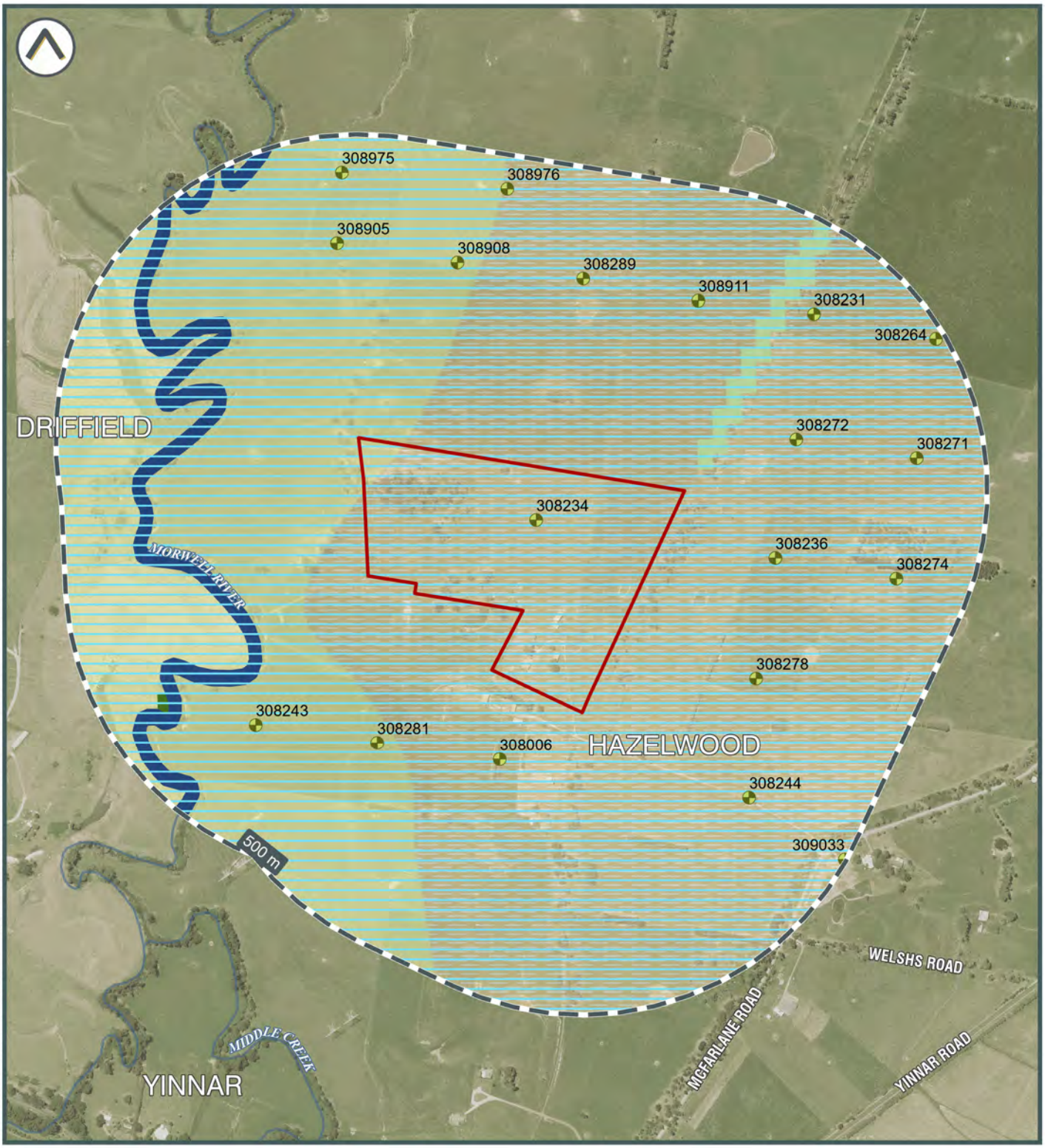
Porous, extensive highly productive aquifers

0 300 600 900 1,200 1,500m

Land Insight

MAP 2.2

Hydrogeology and Other Boreholes



Subject area
Other boreholes
Groundwater Management Areas

Hydrogeologic Unit
Surficial Sediment Aquifer (porous media – unconsolidated)
Upper Tertiary/Quaternary Aquitard (porous media – unconsolidated)

0 100 200 300 400 500m

Land Insight

Contaminated Land Public Register

Subject area

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

0 200 400 600 800 1,000m

Land Insight

ENVIRONMENTAL REGISTERS LICENSES AND INCIDENTS

MAP 3.2

Sites Regulated by other Jurisdictional Body

Subject area

PFAS sites
NPI Facilities
Former Gasworks Sites

Unexploded Ordnance (UXO) Areas
Substantial Potential
Slight potential

Sea Dumping of Depth Charges
Sea Dumping of Depth Charges (Chemical munitions sea dumping)
Other Sea Dumping Sites
Other

Defence Area / Military Sites
Defence Controlled Area

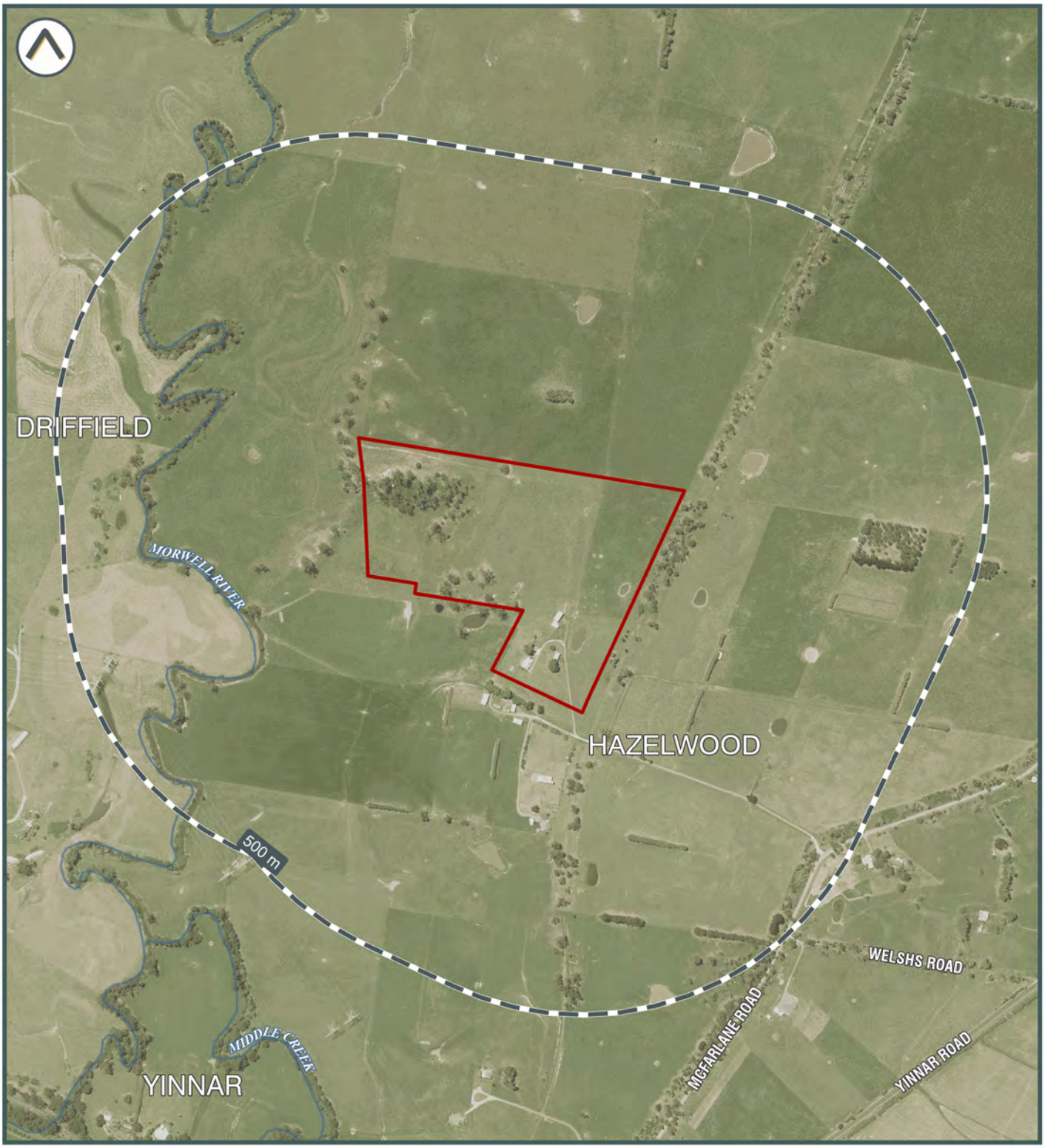
0 300 600 900 1,200 1,500m

Land Insight

ENVIRONMENTAL REGISTERS LICENSES AND INCIDENTS

MAP 3.3

Licences, Approvals & Notices



Subject area

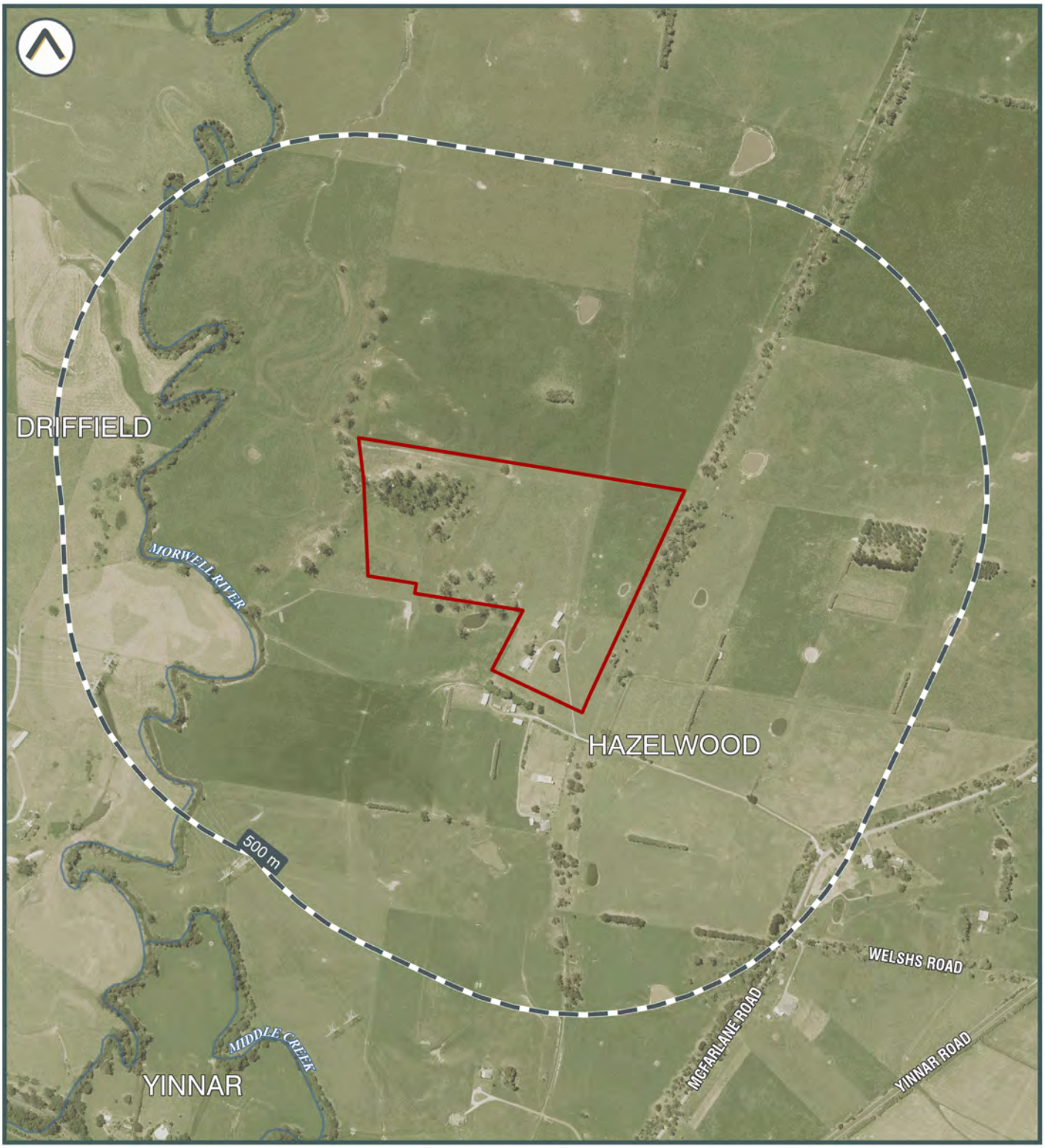
0 100 200 300 400 500m

Land Insight

POTENTIALLY CONTAMINATED AREAS

Potentially Contaminating Activities (PCAs)

MAP 4.1



Subject area

Liquid Fuel Depots

Waste Management Facilities

Operational Petrol Stations

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.

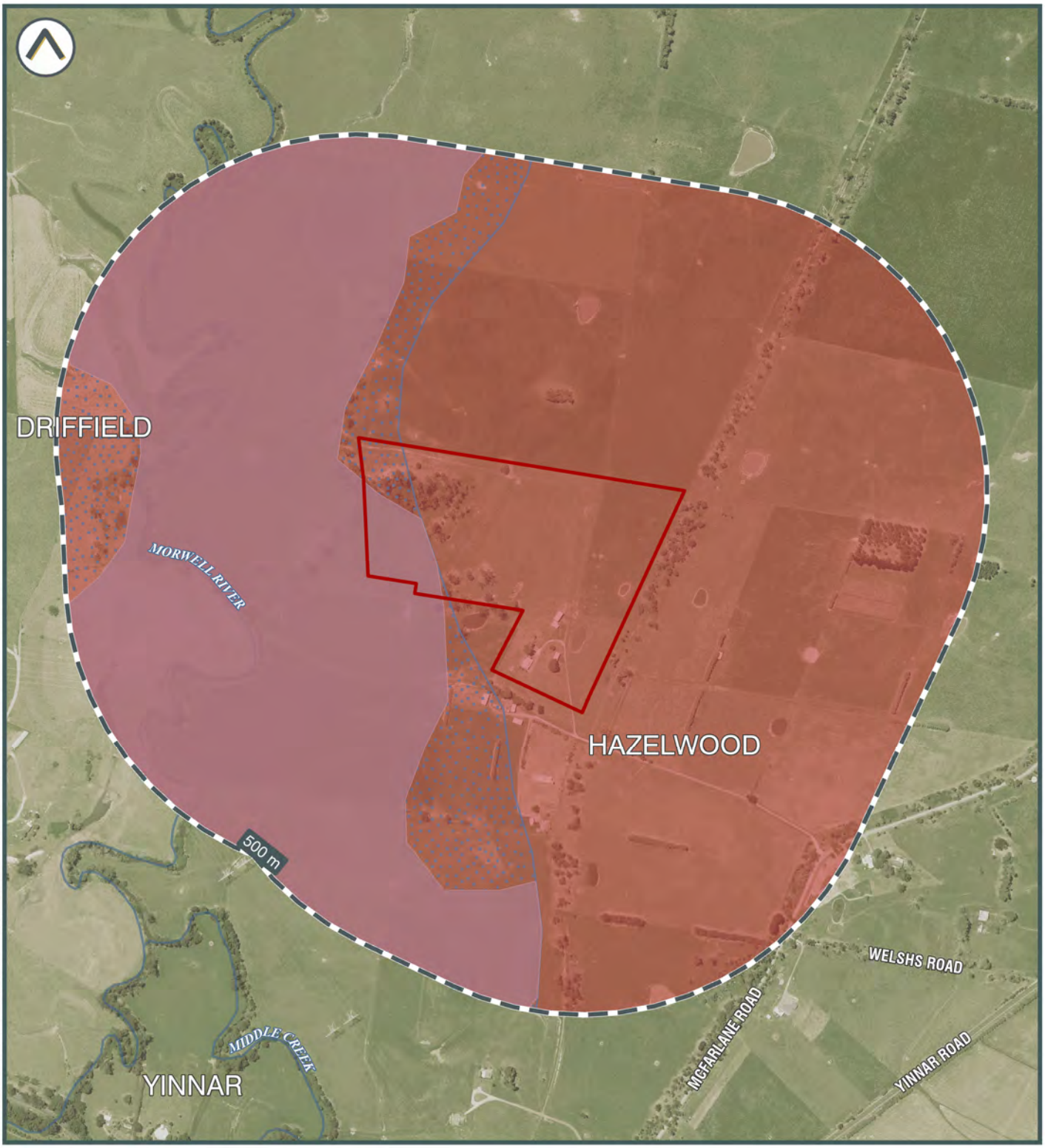
0 100 200 300 400 500m

Land Insight

NATURAL HAZARDS

MAP 5.1

Fire and Flood Hazards



Subject area | Bush Fire Prone Land | Flood Hazard: 1 in 100 year flood extent | Land Subject To Inundation Overlay

0 100 200 300 400 500m

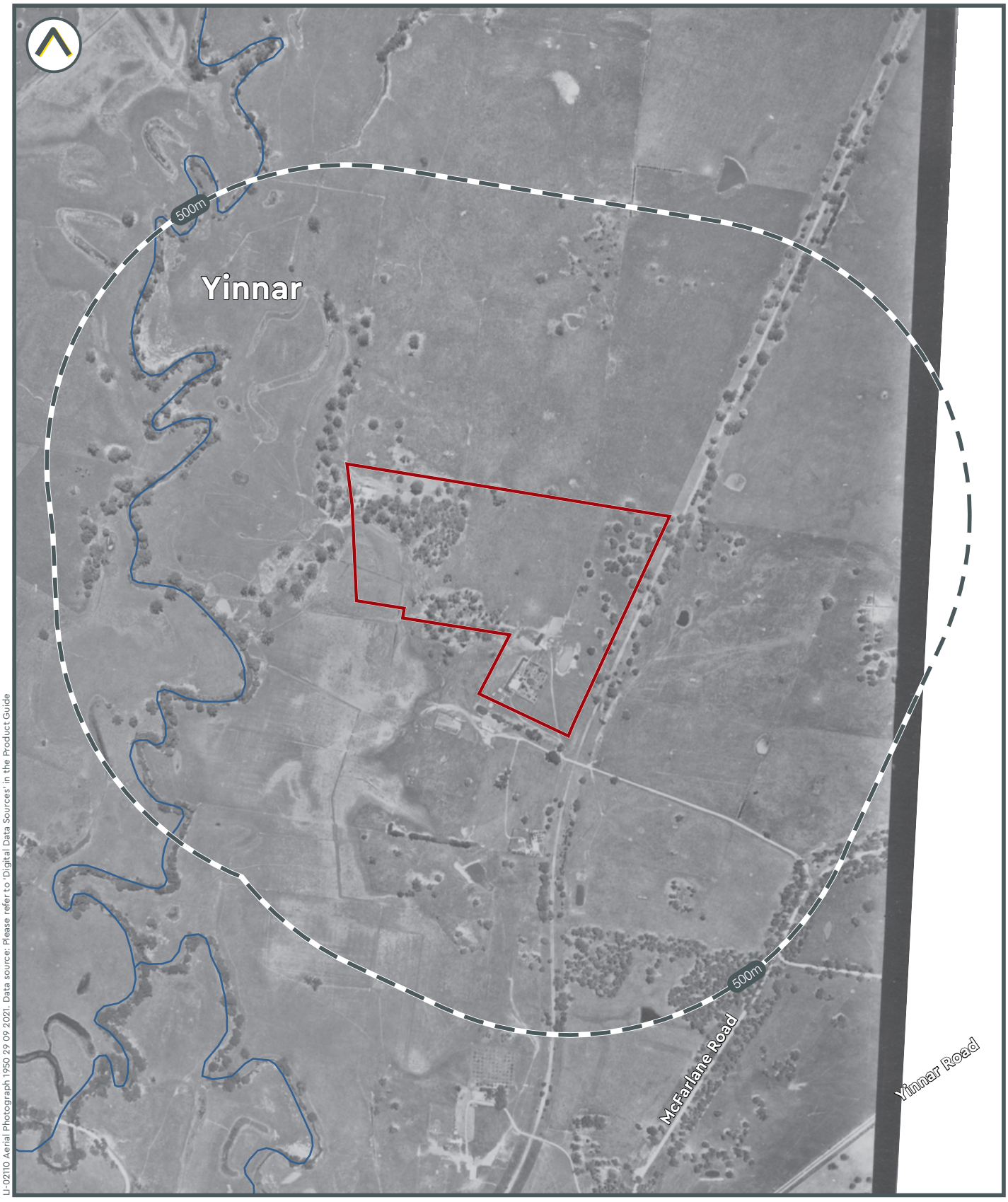
Land Insight

Land Insight RESOURCES

Appendix B

HISTORIC IMAGERY

Historic Aerial Photograph - 1950



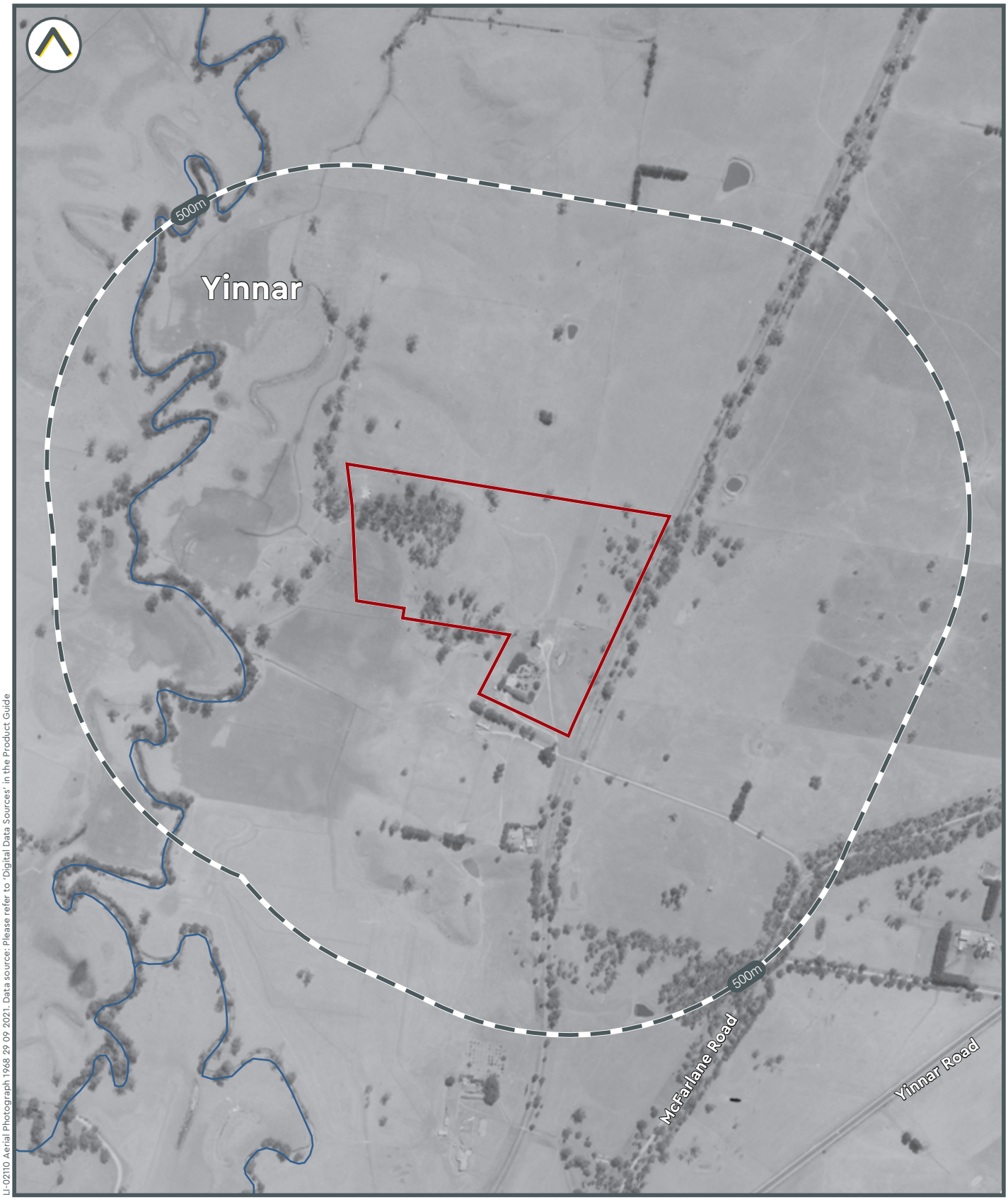
LI-02110 Aerial Photograph 1950 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 400m

Land Insight

Historic Aerial Photograph - 1968



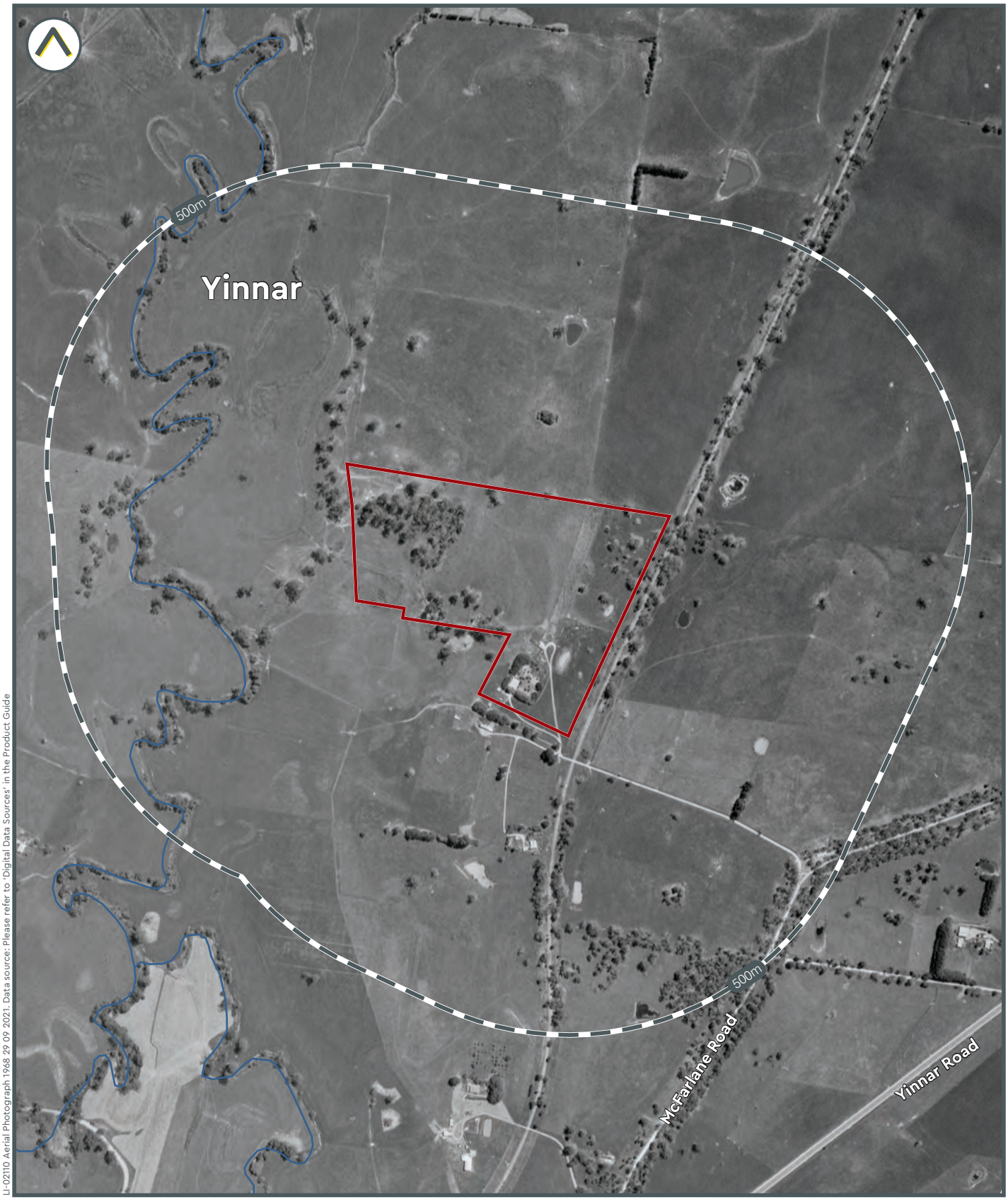
LI-02110 Aerial Photograph 1968 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 400m

Land Insight

Historic Aerial Photograph - 1972



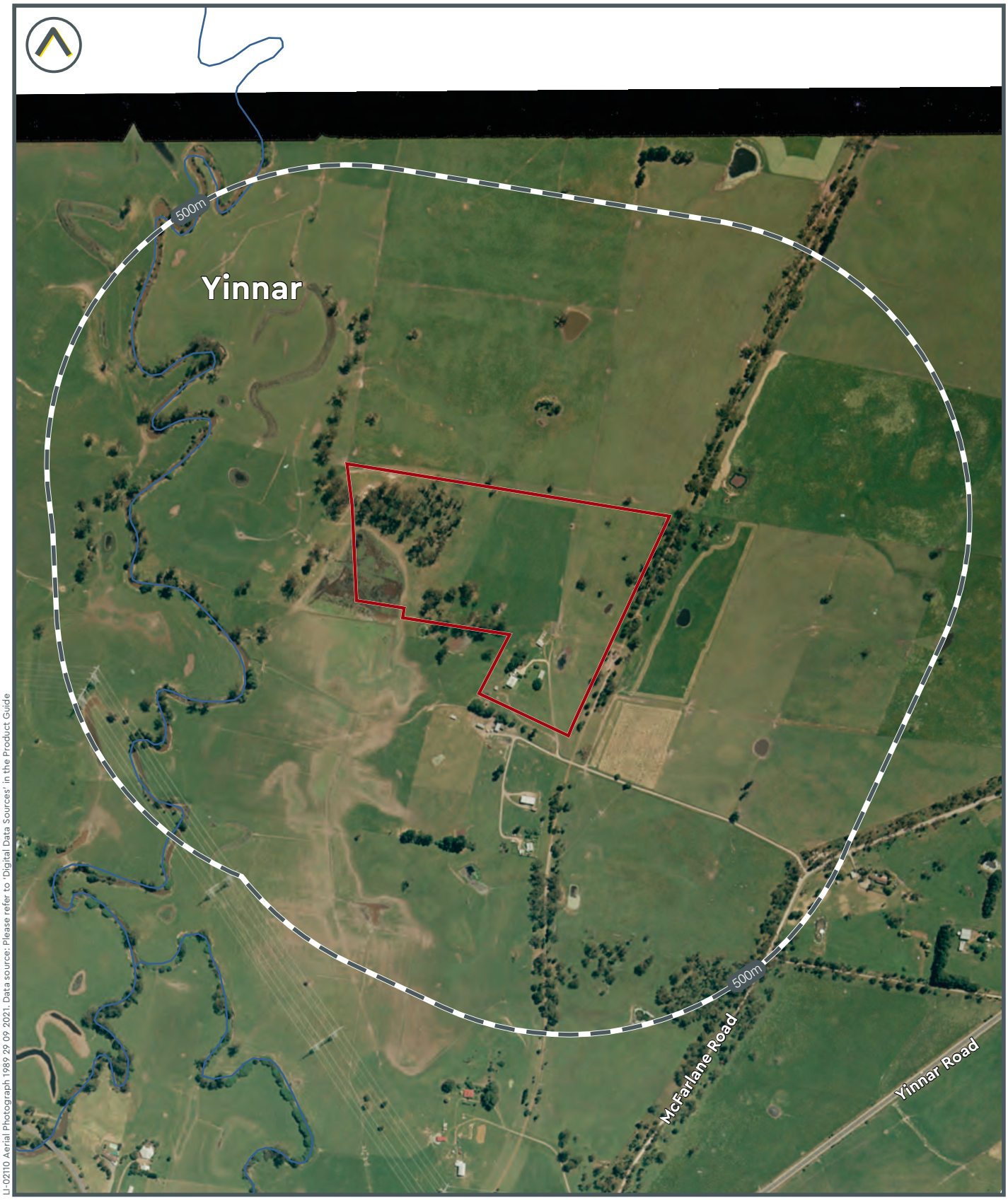
LI-02110 Aerial Photograph 1968 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 400m

Land Insight

Historic Aerial Photograph - 1989



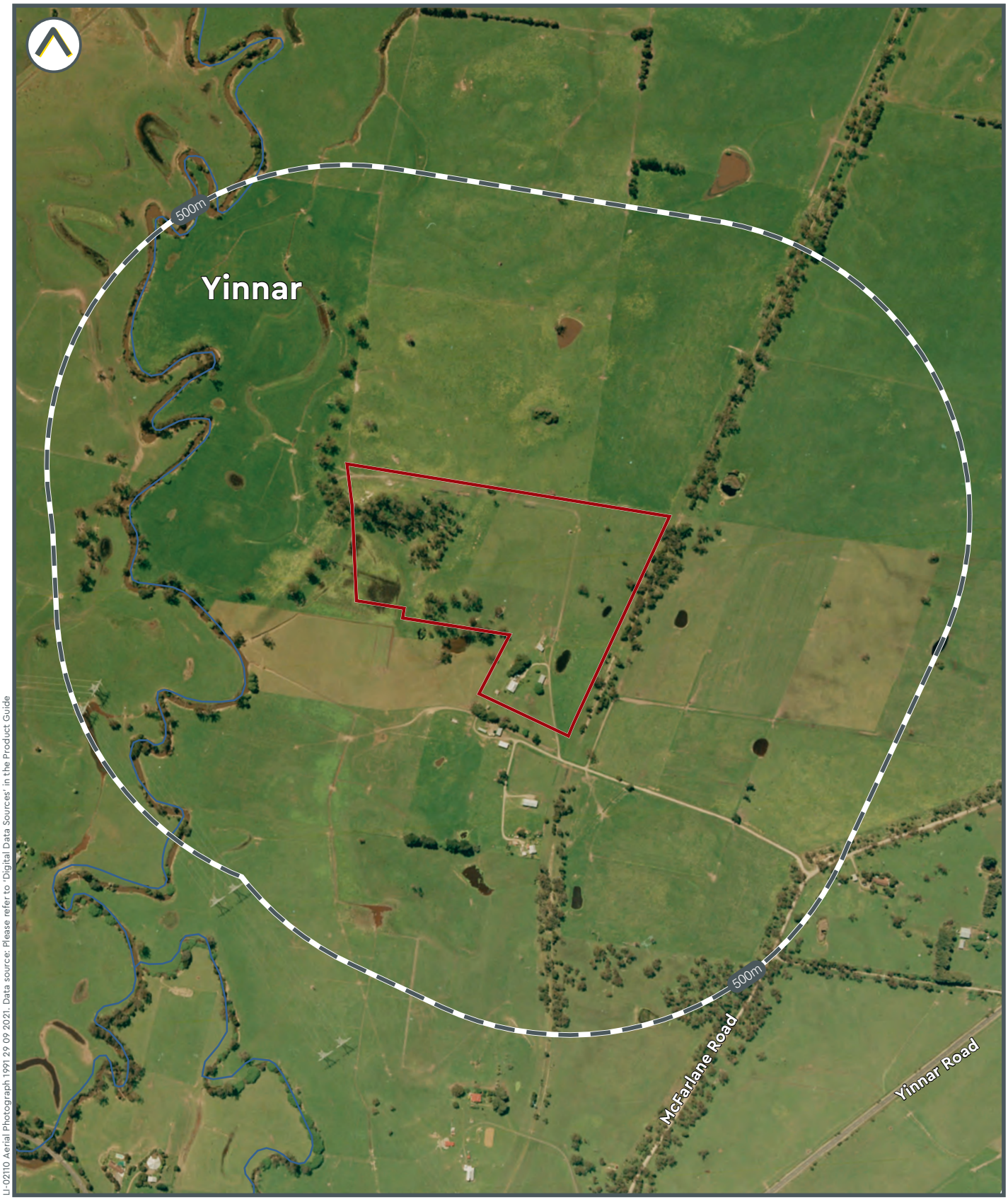
LI-02110 Aerial Photograph 1989 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 400m

Land Insight

Historic Aerial Photograph - 1991



LI-02110 Aerial Photograph 1991 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 400m

Land Insight

Historic Aerial Photograph - 2009

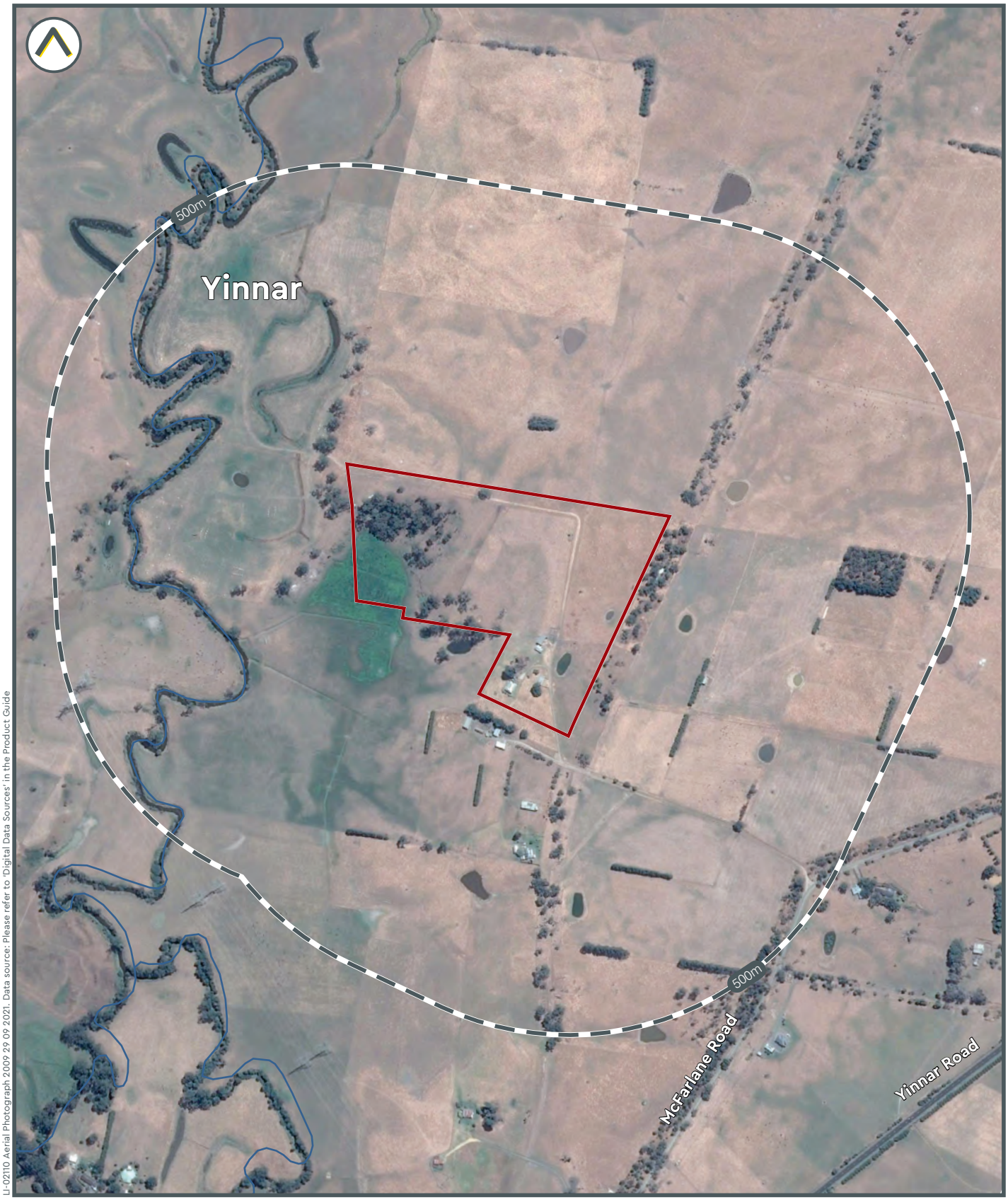
LI-02110 Aerial Photograph 2009 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 400m

Land Insight

Historic Aerial Photograph - 2014



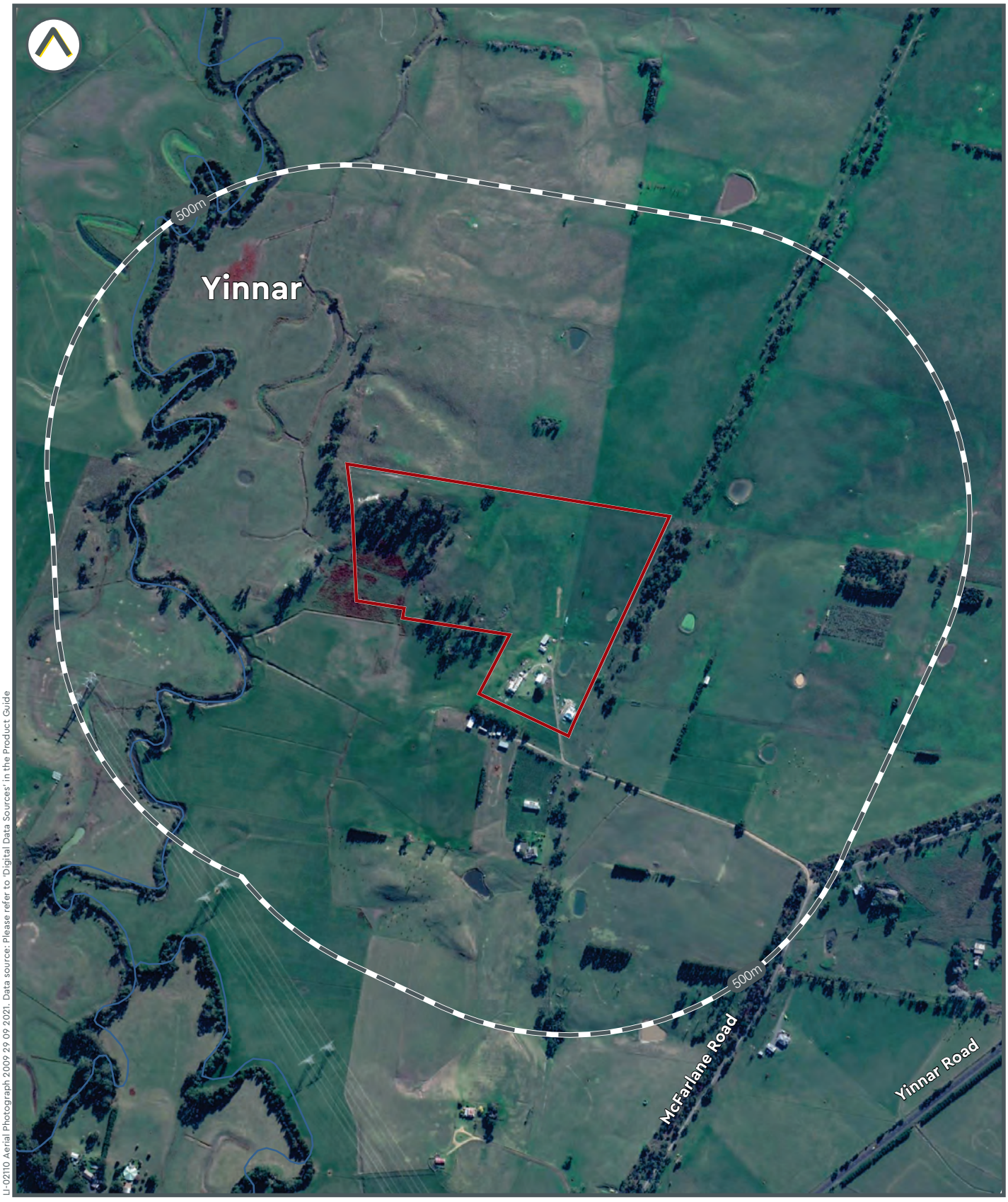
LI-02110 Aerial Photograph 2009 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 400m

Land Insight

Historic Aerial Photograph - 2017



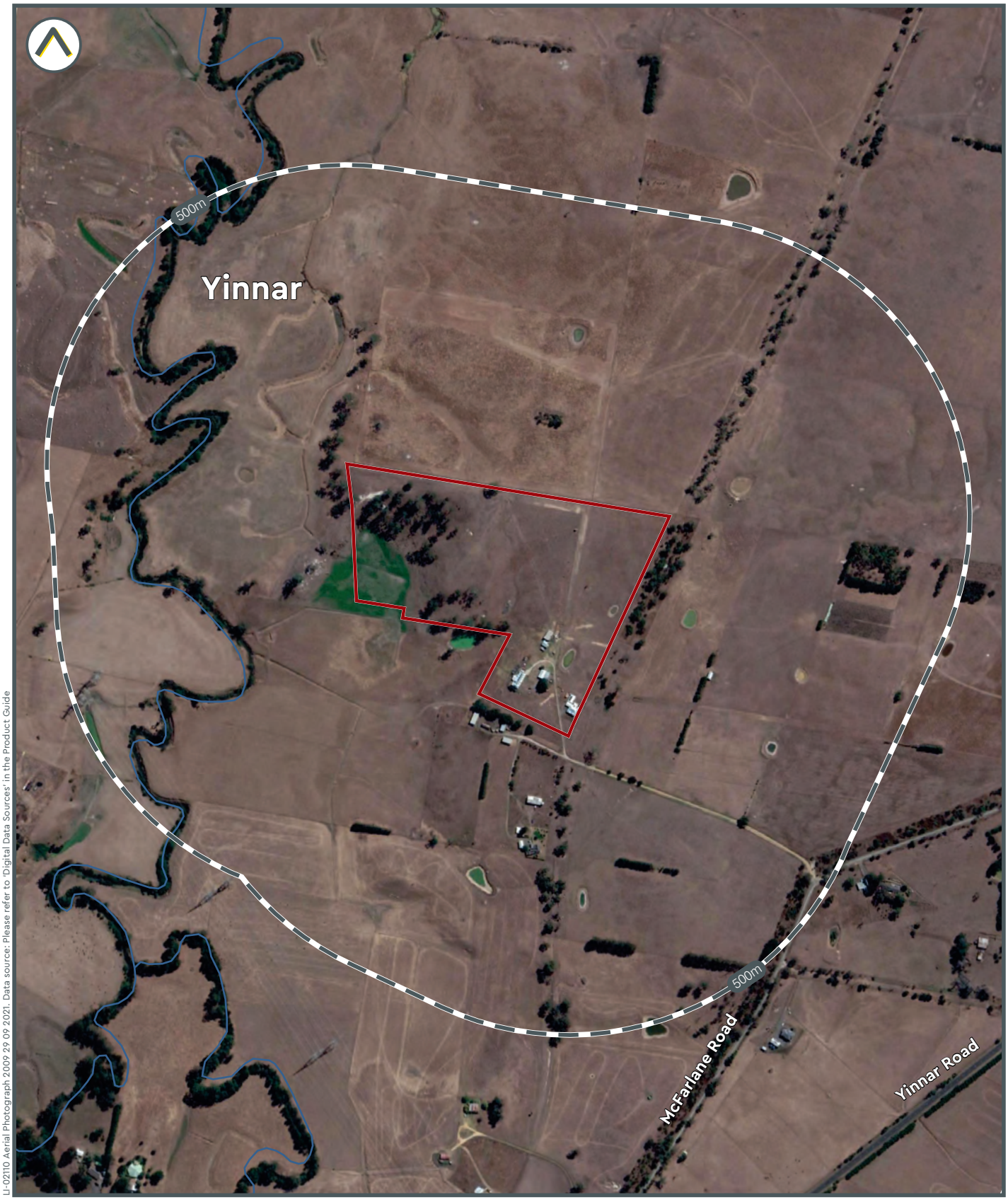
LI-02110 Aerial Photograph 2009 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 400m

Land Insight

Historic Aerial Photograph - 2019



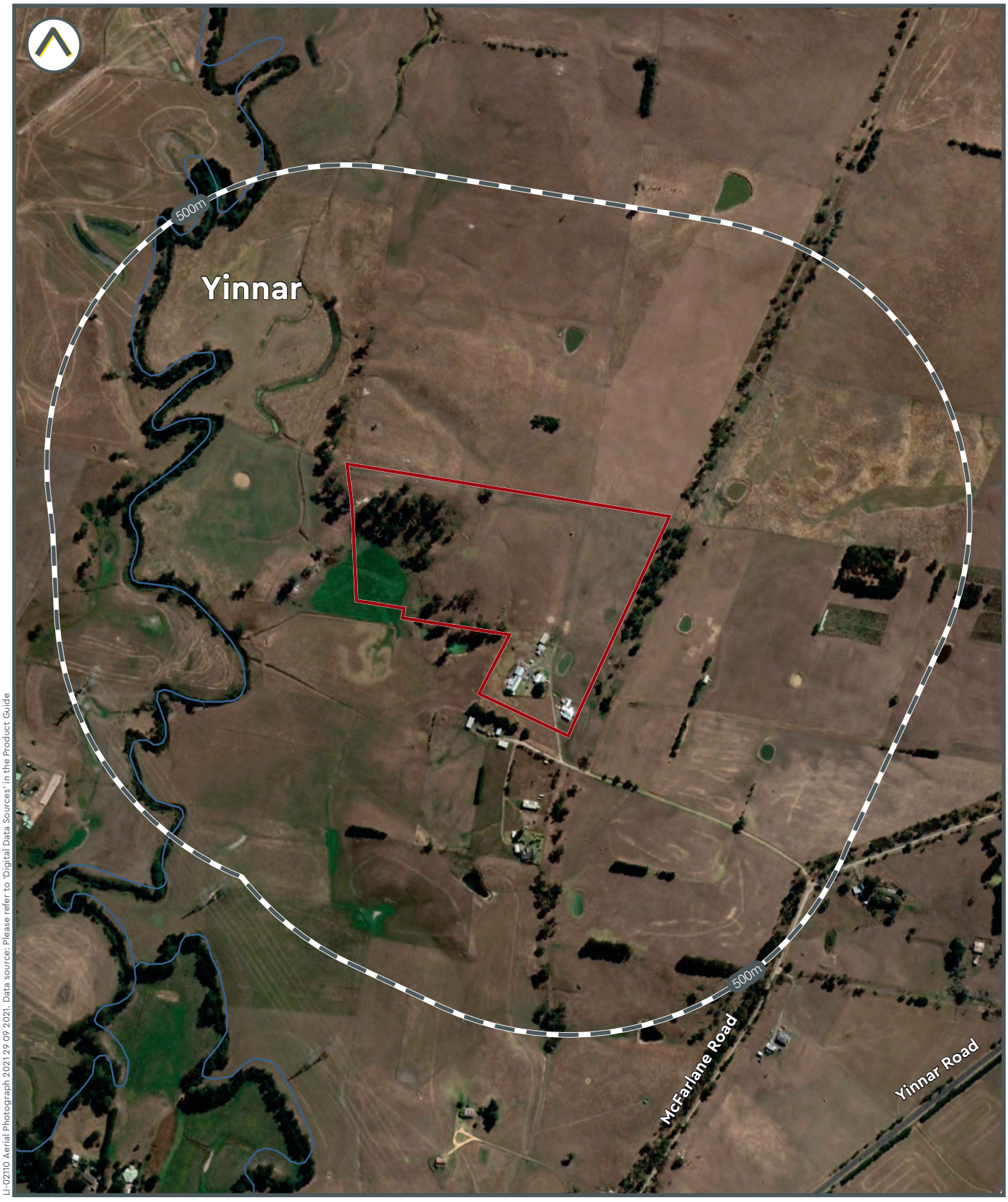
LI-02110 Aerial Photograph 2009 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 400m

Land Insight

Historic Aerial Photograph - 2021



LI-02110 Aerial Photograph 2021 29 09 2021. Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 400m

Land Insight

Land Insight RESOURCES