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Integrated Practical Solutions

Report on
Preliminary Site Investigation (Contamination)

Proposed Appin (Part 2) Precinct
Appin NSW

Prepared for
Walker Corporation Pty Ltd

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The undersigned, on behalf of Douglas Partners Pty Ltd, confirm that this document and all attached drawings, logs and test results have been checked and reviewed for errors, omissions and inaccuracies.

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Executive Summary

Douglas Partners Pty Ltd (DP) has been engaged by Walker Corporation Pty Ltd to prepare a Preliminary Site Investigation (PSI) to support the Appin (Part 2) Precinct Plan (the precinct plan) and Appin (Part 2) Precinct Structure Plan (the structure plan).

The objective of this PSI is to assess the site for any significant contamination constraints to the proposed rezoning. General advice on future stages of works to inform subdivision and construction is also provided with reference to Chapter 4 of *State Environmental Planning Policy (SEPP) (Resilience and Hazards) 2021*. This PSI was undertaken in conjunction with preliminary geotechnical and salinity investigations collectively referred to as 'the land capability study'.

The scope of works undertaken for the PSI included a desktop review of online databases, published regional information and historical aerial photographs as well as soil logs undertaken to inform the intrusive investigation undertaken for the geotechnical and salinity investigations as well as a site walk over and field mapping of possible contamination constraints.

The findings of the desk top study and site walk over identified a number of potential areas of environmental concern (PAEC) which could be defined in 8 PAEC Categories. A total of 47 individual PAECs were identified from the desk top study and the site walk over. Recommendations for future works ('risk management actions') were qualitatively provided based on whether the likelihood of significant contamination risk to be present is low, medium, or high. Of the 47 individual PAEC observed, 27 (57 %) were characterised 'low' risk, 17 (36 %) were characterised as 'low – medium' risk, and 3 (6 %) were characterised 'medium' risk and none were characterised as 'high' risk'. To better understand contamination risks associated with low – medium range PAECs, targeted investigations should be undertaken, in the form of a Detailed Site Investigation (DSI) to inform any future DA for the proposed development.

Based on the findings of the PSI, the potential for significant, widespread contamination to be present at the site with respect to the proposed development is generally low and, as such the site is deemed suitable, from a contamination perspective, for proposed rezoning for mixed land use including residential. Localised evidence of contamination was observed at the site (i.e. PAEC low – medium range) which was typical for a site of this type and for the general region.

Portions of the site that were not accessible during the walk over should be inspected as part of the DSI. The coal seam gas well and network present on site (PAEC category 6) may require targeted soil and hazardous ground gas investigations which can be undertaken at the same time as the DSI or as a separate exercise. Depending on the findings of such investigations, some form of barrier or seal may be required in between the coal seam gas network and the development itself. If remediation is required to render the site suitable for the proposed development, a Remediation Action Plan (RAP) will be required to document remediation and validation works required to resolve any contamination identified in the DSI.

Table of Contents

	Page
1. The Appin Project.....	1
1.1 The Appin (Part 2) Precinct Planning Proposal	1
2. Introduction.....	2
3. Scope of Works	6
4. Site Information	6
4.1 Site Identification.....	6
4.2 Regional and Site-Specific Land Use	7
5. Environmental Setting.....	7
5.1 Topography, Hydrology and Hydrogeology	7
5.2 Soils	10
5.3 Geology.....	11
6. Site History	12
6.1 Historical Aerial Photographs	12
6.1.1 Summary of Key Site Features	15
6.2 Government Database Searches	15
6.3 Site History Integrity Assessment	16
6.4 Summary of Site History	16
7. Site Walk Over	17
7.1 March and April 2023 (Part 2 Areas)	17
8. Potential Areas of Environmental Concern	18
9. Preliminary Conceptual Site Model	20
10. Discussion	22
10.1 Risk Management Actions	23
11. Conclusions and Recommendations	24
12. Limitations	25

Appendix A:	Drawings
	About this Report
Appendix B:	Tables B.1 and B.2
Appendix C:	Government Database Search Results
Appendix D:	Photoplates from the Site Walk Over

Report on Preliminary Site Investigation (Contamination)

Proposed Appin (Part 2) Precinct

Appin NSW

1. The Appin Project

Greater Sydney's population is projected to grow to approximately 6.1 million by 2041 – over a million more people than currently live in the region.

The NSW Government has identified Growth Areas as major development areas that will assist in accommodating this growth. The Greater Macarthur Growth Area (GMGA) is one such growth area and is a logical extension of the urban form of south-west Sydney. The GMGA is divided into precincts. The Appin Precinct and North Appin Precincts are the southernmost land release precincts of the GMGA. The goal is to deliver 21,000+ dwellings.

The land is to be rezoned and released for development to achieve this goal. A submission has been prepared by Walker Corporation Pty Limited and Walker Group Holdings Pty Limited (the Proponent) to rezone 100.10 hectares (ha) of land (the site) within the Appin Precinct from *RU2 Rural Landscape* to the following zones:

Urban Development Zone

Zone 1 Urban Development (UDZ)

Conservation Zone

Zone C2 Environmental Conservation (C2)

The site is known as the Appin (Part 2) Precinct. The site directly adjoins the Appin (Part 1) Precinct, as shown in Figure 1, in Section 2.

1.1 The Appin (Part 2) Precinct Planning Proposal


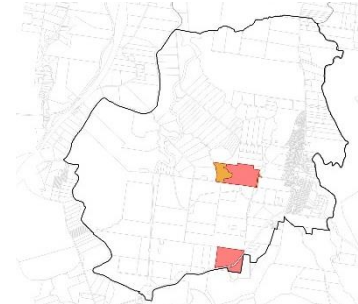

The Appin (Part 2) Precinct Plan (the precinct plan) shows the proposed new zones. 'The precinct plan' will be incorporated into the *State Environmental Planning Policy (Precincts – Western Parkland City) 2021* and contain the provisions (clauses and maps) that will apply to the site. 'The precinct plan' envisages the delivery of the following:

- 1,312 dwellings (as a mix of low-density, medium density and apartments);
- 30,312 m² of gross lettable retail/commercial floor area; and
- 16.91 ha conservation land.

The planning proposal submission is aligned with strategic land use planning, State and local government policies, infrastructure delivery and PP-2022-3979. The development potential is tempered by a landscape-based approach that protects the environment and landscape values, shaping the character of new communities. A series of residential neighbourhoods are to be delivered within the landscape corridors of the Nepean and Cataract Rivers, supported by local amenities, transit corridors and community infrastructure.

The submission includes a hierarchy of plans. The plans and their purpose are summarised in Table 1.

Table 1: The subject Planning Proposal's Plans and Proposal

Appin & North Appin Precincts Indicative Plan	Appin (Part 2) Precinct Plan (The Precinct Plan)	Appin (Part 2) Precinct Structure Plan (The Structure Plan)
<p>Broader context and for information purposes only. It has no statutory weight. It identifies:</p> <ul style="list-style-type: none"> • Higher-order transport network; • Centres hierarchy; • School sites; • Conservation areas; • Residential areas; and • Cultural Sites and Connections. 	<p>It shows the land proposed to be rezoned and incorporated into a new schedule in the Western Parkland City SEPP 2021.</p> <p>The precinct plan contains the development provisions (clauses and maps) applicable to the Site and is used in assessing development applications.</p>	<p>Structure plan for the Site, showing staging of release areas.</p> <p>Development is to be generally consistent with the structure plan. It illustrates land use components including (but not limited to):</p> <ul style="list-style-type: none"> • Low and medium-density residential; • Retail and employment centres; • School; • Open space; • Drainage network/basins; and • Transport network.
 <p>(21,000 dwellings)</p>	 <p>(1,312 dwellings)</p>	 <p>(1,312 dwellings)</p>

2. Introduction

Douglas Partners Pty Ltd (DP) has been engaged by the Proponent to prepare a Preliminary Site Investigation (PSI) to support the Appin (Part 2) Precinct Plan (the precinct plan) and Appin (Part 2) Precinct Structure Plan (the structure plan).

The precinct and structure plan boundaries are Wilton Road to the east, the Nepean River to the west and Ousedale Creek to the north. Refer to Figure 1 and Table 3 for key attributes of the precinct plan and structure plan area.

The Appin (Part 2) Precinct Plan zones land for conservation and urban development. It establishes the statutory planning framework permitting the delivery of a range of residential typologies, retail, education, business premises, recreation areas, and infrastructure services and provides development standards that development must fulfil. Within the proposed urban development zone, 1,312 dwellings and more than 30,000 m² of gross lettable floor area for retail and commercial space can be delivered.

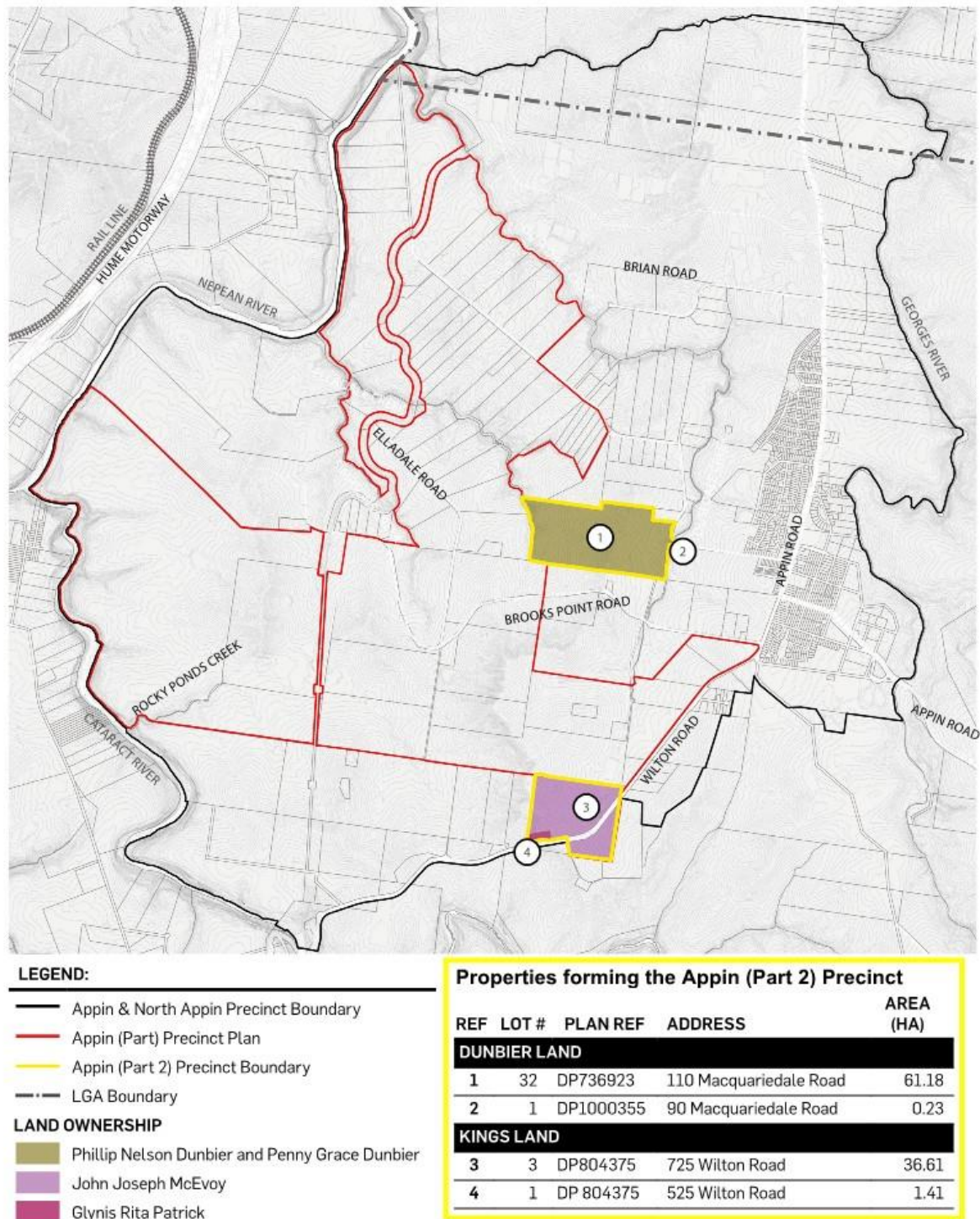
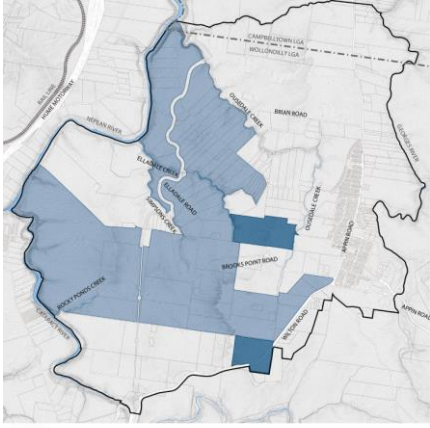


Figure 1: Appin (Part 2) Precinct Boundary

Table 2: Summary of Appin (Part 2) Precinct Key Attributes

Location	Key Attributes	
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Appin (Part 2) Precinct</p>  <p>LEGEND: Appin & North Appin Precincts boundary Appin (Part 1) Precinct Boundary Appin (Part 2) Precinct Boundary LGA Boundary</p>	<p>Area</p> <p>LGA</p> <p>Proposed Dwellings</p> <p>Proposed retail & commercial floor space</p> <p>Proposed Population</p>	<ul style="list-style-type: none"> - Total – 100.10 ha - Private Ownership – 100.10 ha <p>Wholly Wollondilly LGA</p> <p>1,312</p> <p>30,000+</p> <p>3,709</p>

This PSI has been prepared with reference to and meets the reporting requirements for a Preliminary Site Investigation (PSI) as set out in NSW EPA guidelines under the *Contaminated Land Management (CLM) Act 1997*, Chapter 4 of *State Environmental Planning Policy (SEPP) (Resilience and Hazards) 2021* and NSW EPA endorsed guidelines, in particular the National Environment Protection Council *National Environment Protection (Assessment of Site Contamination) Measure, 1999*, as amended 2013 (NEPC, 2013) and NSW EPA *Consultants Reporting on Contaminated Land* (EPA, 2020).

The objective of this PSI is to assess the site for any significant contamination constraints to the proposed rezoning. General advice on future stages of works to inform subdivision and construction is also provided with reference to Chapter 4 of *SEPP (Resilience and Hazards) 2021*, and Planning Guidelines SEPP 55 – Remediation of Land (Department of Urban Affairs and Planning [DUAP], Environment Protection Authority [EPA], 1998). This PSI was undertaken in conjunction with preliminary geotechnical and salinity investigations collectively referred to as ‘the land capability study’¹.

This PSI is a revision of DP (2024)², and comprises a revision of the site boundary to include the southern portion of Lot 3, deposited Plan (D.P.) 804375, as per the request of the Proponent in an email dated 1 October 2024. Since the issue of DP (2022)³ and DP (2024), any changes or updates in the remaining lots of the site, in terms of a site inspection, were not considered.

¹ DP (2024) *Report on Preliminary Geotechnical Land Capability Assessment, Proposed Appin (Part 2) Precinct, Appin NSW*, DP ref. 76589.18.R.002.Rev3.Land Cap, dated October 2024 – ‘the land capability study’.

² DP (2024) *Report on Preliminary Site Investigation, Proposed Appin (Part) Precinct, Appin NSW*, DP ref. 76589.18.R.001.Rev3, dated 3 September 2024 – Douglas (2024).

³ DP (2022) *Report on Preliminary Site Investigation, Proposed Appin (Part) Precinct, Appin NSW*, DP ref. 76589.06.P.001.Rev3.PSI, dated 12 October 2022.

3. Scope of Works

The following scope of work was undertaken to inform this PSI:

- Desktop review of:
 - o NSW EPA public registers under the Contaminated Land Management Act 1997 (CLM Act) and the Protection of the Environment Operations Act 1997 (POEO Act);
 - o Published geological, soil landscape, salinity and acid sulphate soil maps; and
 - o Soil logs from limited intrusive investigations undertaken to inform the preliminary geotechnical and salinity investigations;
- A site walk over and field mapping of possible contamination constraints undertaken by a DP Environmental Engineer who is a chartered engineer and a certified consultant (CEnvP SC, awarded by EIANZ) and another DP Environmental Scientist to inform all three components of the land capability study;
- Review of test pits logs undertaken to inform the geotechnical investigation; and
- Preparation of this revised PSI report.

4. Site Information

4.1 Site Identification

The site, which has a total area of approximately 100.10 ha, is located in the local government area of Wollondilly Shire Council ('Council'). Table 3 below and Drawing 1 in Appendix A shows the formally registered lots located in the site.

Table 3: Registered lots within the site boundary

Lot(s)	Deposited Plan (D.P.)
1	804375
3	804375
1	1000355
32	736923

Northern Portion of the Site

The northern portion of the site is bound by Ousedale Creek to the east, Elladale Creek in the west, and adjoining rural land holdings to the north and south. The western boundary adjoins the Appin (Part 1) Precinct, and Macquariedale Road is located to the east connecting Appin Road through to the north western part of the Appin (Part 1) Precinct. The northern portion of the site also comprises a cluster of trees to the west of the site.

Southern Portion of the Site

The southern portion of the site is bound by and adjoining rural land holdings to the north, west and south, and the northern boundary adjoins the Appin (Part 1) Precinct.

The southern portion of the site comprises Wilton Road, and is in proximity to the Macarthur Filtration Plant, located to the east. The Macarthur Filtration Plant is located immediately to the south of existing industrial land on Wilton Road, south of Appin Village.

4.2 Regional and Site-Specific Land Use

The site is primarily used for low density agricultural/pastoral and rural residential purposes. The residences are located along Northamptondale Road, in the northern portion of the site – Lot 32 DP736923; and Wilton Road in the south-east – Lots 1 and 3 DP804375.

Surrounding land uses generally comprise low density agricultural/pastoral, rural residential and commercial land use, as well as the power station site located near the south-east boundary and Appin Colliery in the south-east. Appin town centre is located approximately 1 km east of the site.

5. Environmental Setting

5.1 Topography, Hydrology and Hydrogeology

The site topography is undulating with two principal valleys ranging from 226 m Australian Height Datum (AHD) to approximately 250 m AHD in the south portion of the site (Lots 1 and 3 DP804375) and between approximately 150 m AHD to 230 m AHD in the north portion of the site (Lot 32 DP736923 and Lot 1 1000355).

The slope gradient generally ranges from approximately 5% in low lying generally flat areas of the site to approximately 20% along the valleys in the centre portion of Lot 32 DP736923 and south-west of Lot 3 DP80437 on the flanks of the Nepean River. The average slope gradient across the site is approximately 15 to 20%.

Figure 2 below presents regional topography mapping (10 m Australian Height Datum (AHD) intervals between contours) as obtained from NSW Spatial Services, key surface water features and registered groundwater bores as recorded by the NSW Department of Primary Industries (Water) and the Bureau of Meteorology Groundwater Explorer.

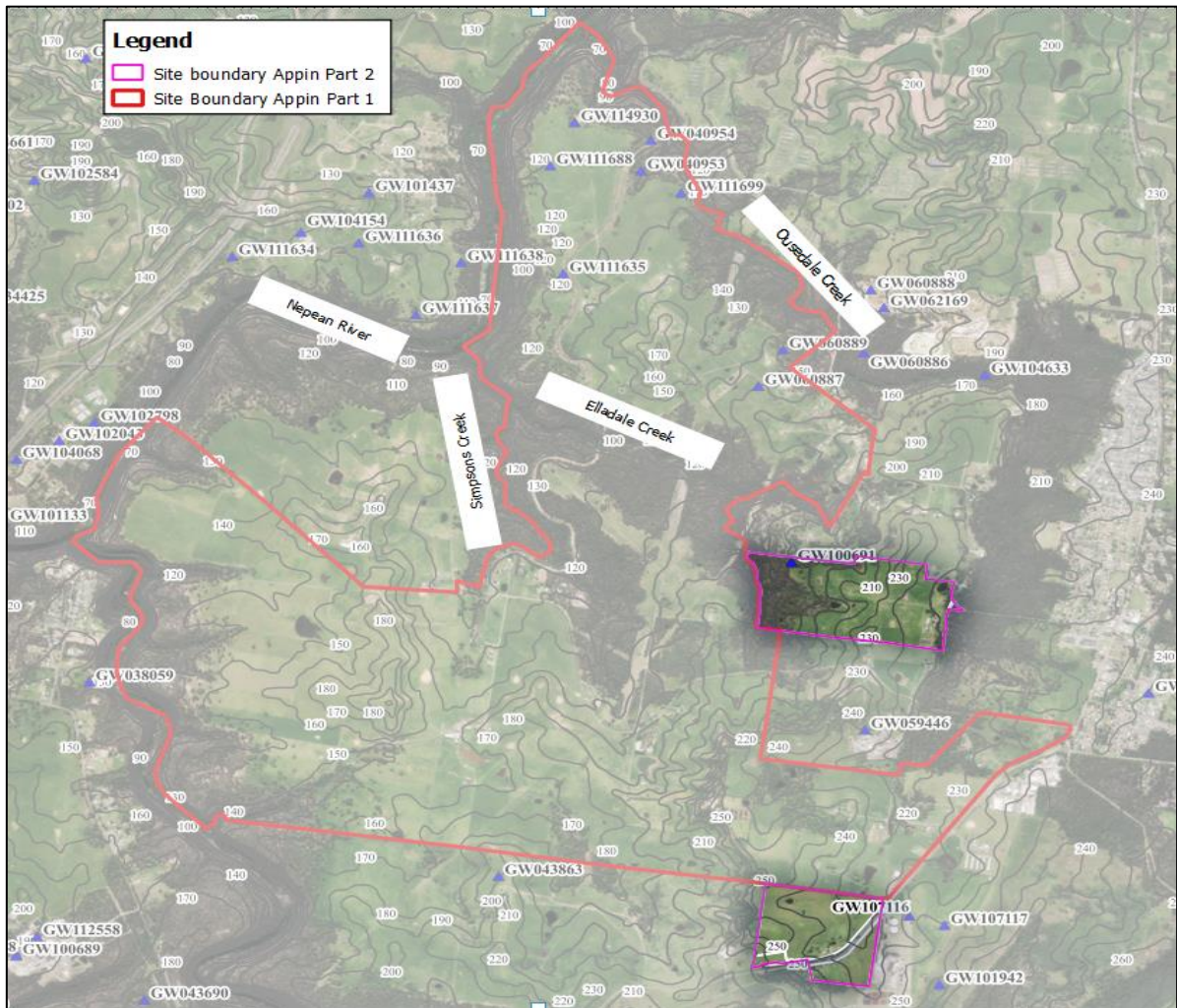


Figure 2: Site Topography (dark grey lines are 10 m intervals), Surface Water Features and Registered Groundwater Bores (blue triangles)

Four groundwater bores are registered on site, and a further 10 close the site, on the eastern side of the Nepean River. Key recorded details for all 14 bores are presented in Table 4 below.

Table 4: Registered Groundwater Bores

Groundwater Bore Reference	General Location	Purpose	Geology	Groundwater/Bore Depth (m bgl)	Salinity (µS/cm)
On-site Bores					
GW100691 to GW100694 (four bores in one area)	On-site	Monitoring	Sandstone	NP/8 m	NP
Near-site Bores					
GW059446	Appin Power Station	Commercial and industrial	Sandstone with minor shale beds	NP, screened at 51 m and below/57 m	NP
GW015090	Appin Town Centre	Stock and Domestic	Sandstone	NP/37 m	NP
GW107116	Near site	Unknown	NP	NP	NP
GW107117	Near site	Unknown	NP	NP	NP
GW101942	Near site	Monitoring	Sandstone	NP/245 m	NP
GW043863	Near site	Water supply	Shale in top 32 m then Sandstone	NP/122 m	7,011 (saline)
GW060888	North-east of site	Drainage	Sandstone and shale with mudstone at depth	NP/395 m	NP
GW062169	North-east of site	Exploration	Sandstone	NP/100 m	NP
GW060886	North-east of site	Dewatering	Sandstone and shale with mudstone at depth	NP/381 m	NP
GW104633	North-east of site	Water supply	Sandstone	NP/141 m	NP

Note: NP - Not provided

The above recorded bores do not include any previously used by BHP Billiton or South 32 which are present in the general region (refer to Section 7 for bores sighted on site). Whilst little to no information on groundwater depth was made available for registered groundwater bores on, and near the site, observed geology, bore depths and installation details indicate saline groundwater is present in primarily sandstones at depths of more than 50 m.

5.2 Soils

Regional soils mapping for the site as obtained from Soil Conservation Service of NSW, *Soil Landscapes of the Penrith 1:100 000 Sheet* is presented in Figure 3, below.



Figure 3: Regional soils mapping for the site (yellow boundary)

Regional soils mapping as presented and referenced above indicates that the majority of the site is mapped as Luddenham soils (light pink) in the southern portion of the site (Lots 1 and 3 DP804375) and central portion of the site (Lot 32 DP736923 and Lot 1 1000355), comprising shallow dark podzolic or massive earthy clays on crests being erosional soils. Luddenham soils are associated with undulating to rolling low hills of the Wianamatta Group shales and lower slopes and drainage lines. Also mapped as present at the site are the following:

- Blacktown soils (dark green) which are associated with the gently undulating rises on Wianamatta Group shales and Hawkesbury Sandstone. Blacktown soils comprise shallow to moderately deep red and brown podzolic soils on crests, upper slopes and well drained areas and deep yellow podzolic soils and soloths on lower slopes and in areas of poor drainage. Such soils are generally moderately reactive highly plastic subsoil, of low soil fertility with poor soil drainage; and
- Hawkesbury soils (dark pink) which are colluvial lithosols/siliceous sands comprising podzolic soils, siliceous sands and secondary yellow earths associated with drainage lines dissecting Hawkesbury Sandstones, along the Nepean River and tributaries.

5.3 Geology

Regional geology mapping for the site as obtained from Geological Survey of New South Wales *Wollongong – Port Hacking 1:100 000 scale Geological Series Sheet 9029 - 9129*, 1st Edition 1985 is presented in Figure 4 below.



Figure 4: Regional geology mapping for the site (yellow boundary)

Regional geology mapping as presented and referenced above indicates that the majority of the site is underlain by Ashfield Shale of the Wianamatta Group (dark green) comprising laminite and dark grey siltstone. Also mapped as present at the site, Hawkesbury Sandstone (light green) comprising medium to coarse-grained quartz sandstone with very minor shale and laminite lenses.

Figure 5 below presents regional salinity mapping for the site as obtained from the Department of Infrastructure, Planning and Natural Resources *Salinity Potential in Western Sydney* (2002).

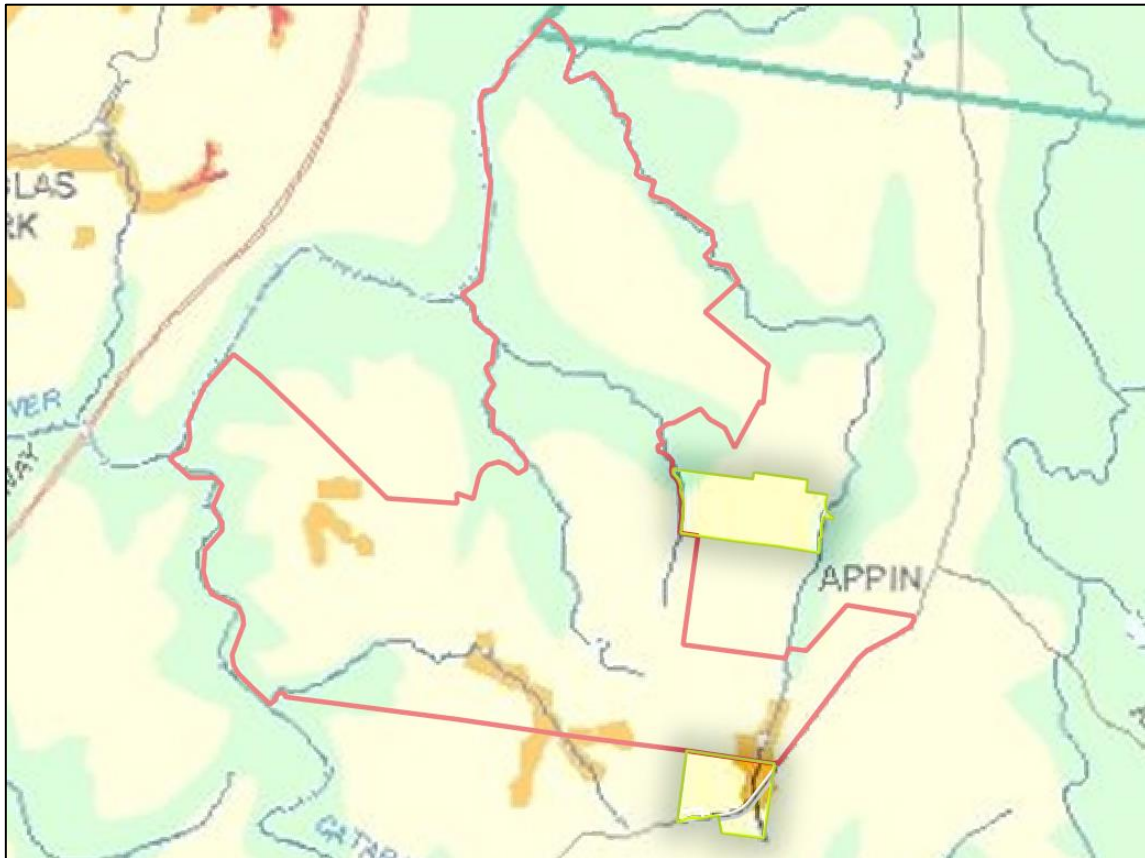


Figure 5: Regional Salinity Mapping

Regional salinity mapping as presented and referenced above indicates that the site is located in an area mapped as follows:

- Very low salinity potential (green) along the Nepean River and tributaries;
- Moderate salinity potential (pale yellow) across the majority (approximately 90%) of the site; and
- High salinity potential (orange) along the southernmost portion of an unnamed creek in the southern portion of the site.

6. Site History

6.1 Historical Aerial Photographs

A search was made using the NSW Spatial Data Services (SDS) online Historical Imagery tool⁴ (pre 2010 images), Nearmap (2010) and MetroMap (2020) for historical aerial photographs covering the site area. Select years providing approximate ten-year intervals and based on the availability and quality of images covering the whole site were visually assessed for general site uses, changes in site activity between aerial photographs and to identify key site features for further assessment.

⁴ <https://portal.spatial.nsw.gov.au/portal/apps/webappviewer/index.html?id=f7c215b873864d44bccdda8075238cb>
Last accessed 23 March 2023.

A summary of key observations is provided in Table 5, below. The key site features are presented on Drawings 2 to 10, Appendix A and further documented in Table B.1, Appendix B.

Table 5: Summary of key observations from historical aerial photographs

Year	Drawing Ref	Key Observations
1947	Drawing 2	<p>Aerial photographs for 1947 were available for the northern portion of the site only – photographs for the remainder of the site were unavailable from SDS.</p> <p>The site and surrounding areas appeared to be used for low density agricultural (e.g. pastoral) purposes. Key site features include small structures, farm dams (four, possibly five dams), localised areas of agriculture and ground disturbance including possible filling.</p> <p>An additional farm dam (Key Feature Reference [KFR] 262) was present along the eastern boundary within Lot 32, DP736923 of the site.</p>
1956	Drawings 3a to 3b	<p>Aerial photographs for 1956 were available for approximately 60% of the site covering only Lot 32 DP736923 and Lot 1 1000355. The southern portion of the site were not available (Lots 1 and 3 DP804375).</p> <p>The general profile and land uses for the site and surrounding areas were generally consistent with the 1947 aerial photographs, with a small increase in residency evident along Macquariedale Road in the northern and eastern (263) portions.</p>
1961	Drawing 4	<p>Aerial photographs for 1961 were only available for the south-eastern portion of the site.</p> <p>Agricultural activity at the site has been further established since 1956 with the construction of three farm dams and new fields, as well as market garden/nursery activity, and a residential property was also visible in the south-eastern portion of the site (168, 264a and 264b).</p>
1975	Drawing 5	<p>Aerial photographs for 1975 were available for the whole site area and immediate surrounds.</p> <p>The site was subject to further establishment of agricultural activity, as additional farm dams (25, possibly 26, 265 to 270) not previously observed) and fields were constructed at the site since 1961. Ground disturbance near residences and agricultural areas were visible in the southern and south-eastern portion of the site.</p> <p>Bare earth associated with the high-pressure gas and electricity power lines was evident within surrounding areas. Appin Power Station was also visible near the south-eastern portion of the site (previous aerial photographs did not cover this portion of the surrounding area). Several greenhouses in clusters of between 15 and 20 structures were observed to the far north-east of the site.</p>

Year	Drawing Ref	Key Observations
1990	Drawing 6	<p>Aerial photographs for 1990 were available for approximately 40% of the site covering the northern portion of Lot 32 DP736923. Aerial photographs for the southern portion of the site were not available.</p> <p>Further residences were constructed along Macquariedale Road, Wilton Road and Brooks Point Road since 1975, as well as fields and 21 farm dams not previously observed at the site (KFR 262). Localised areas of ground disturbance and possible filling were also observed.</p>
1994	Drawing 7	<p>Aerial photographs for 1994 were available for the whole site area. Aerial photographs for a small portion of the immediate surrounds (south-western portion of the site) were not available.</p> <p>As with the previous aerial photographs, there was evidence of increasing occupancy (rural residency) and low-density agricultural land use, including the construction of more dams (one not previously observed), paddocks and large fields. In the south-eastern portion of the site, some ground disturbance and possible refuse material was also visible (273b).</p> <p>A possible airport was visible in the south-eastern portion of the site, near Wilton Road.</p>
2005	Drawing 8	<p>Aerial photographs for 2005 were available for the whole site and immediate surrounds.</p> <p>One new farm dam has been constructed on the site (Lot 32 DP736923) since 1994.</p> <p>Several residences and associated structures have been constructed along Macquariedale Road. Stockpiles (likely of soil) are visible on the westernmost portion of Elladale Road. Ground disturbance is visible in the corridor of the gas main and power lines near their intersection, next to Brooks Point Road. A small possible orchard is visible on Brooks Point Road. Residences have been constructed on lots in the south-eastern portion of the site, next to Wilton Road. Seven new farm dams have been constructed on the site</p>
2010	Drawing 9	<p>Aerial photographs for 2010 were available for the whole site.</p> <p>The general profile and land uses for the site were generally consistent with the 2005 aerial photographs.</p> <p>For surrounding areas, new residences and associated structures are visible along Macquariedale Road, with some localised ground disturbance visible in two lots. Further ground disturbance is evident along the corridor of power lines near Brooks Point Road and two residences have been constructed along the same road. Eight farm dams not previously observed at the site are present.</p>

Year	Drawing Ref	Key Observations
2020	Drawing 10	<p>Aerial photographs for 2020 were available for the whole site.</p> <p>Areas of ground disturbance, refuse and scrap metal materials, possible stockpiling of material, and small structures were also observed in the eastern portion of the site (275, 276; Lot 32 DP736923).</p> <p>Possible stockpiles and ground disturbance were observed in lots along Wilton Road, in the south-eastern portion of the site, as well as some ground disturbance and refuse material, associated with the residential dwelling, (277; Lot 3 DP804375).</p>

6.1.1 Summary of Key Site Features

A total of 24 key site features were identified from the aerial photograph review. The types of site features observed are broadly summarised in the below list:

- Ground disturbance which may indicate the installation of below ground structures/services, filling or quarrying activities;
- Small structures (e.g. animal shelters, pump sheds and storage sheds);
- Farm dams;
- Fly-tipping/dumped refuse materials;
- Low density agricultural activity (e.g. fields enclosed in a fenced area);
- Possible horticultural or orchard farming;
- Possible building footprints;
- Structures (farm buildings, residences);
- Stockpiles;
- Tracks, including racetracks;
- Material storage areas; and
- Model flying club.

Select key features were inspected during the site walk over to ascertain whether or not they require further assessment for contamination and are therefore a Potential Area of Environmental Concern (PAEC).

6.2 Government Database Searches

A search of NSW EPA public records for sites recorded under the CLM Act and POEO Act within the suburb of Appin was undertaken by DP on 8 October 2024. The search records are provided in Appendix C and the findings are summarised below:

- A search for records of notices made under the CLM Act did not identify any sites within Appin suburb;

- A total of 140 licences, applications and notices were made by 14 parties under the POEO Act were recorded in the suburb of Appin. None of which were located within the subject site (Appin Part 2 Precinct);
- No sites were recorded as subject to enforceable undertakings under the POEO Act in Appin;
- A review of the NSW EPA per-and polyfluoroalkyl substances (PFAS) investigation program records^{5, 6, 7} outlines the nearest site included in the program to be located at Camden Airport, 15 km north-west of the site; and
- A search was made on the NSW Government's SEED Miners and Explorer's Map⁸ for Coal Seam Gas Boreholes on the site and no boreholes were register within the site, however four were register close to the site, as recorded on the SEED map as 'permanently sealed' i.e., not producing gas and have been decommissioned. Their locations are shown on Drawings 11a and b, Appendix A.

6.3 Site History Integrity Assessment

The information used to establish the history of the site was sourced from reputable and reliable reference documents, many of which were official records held by Government departments and agencies. The databases maintained by various Government agencies potentially can contain high quality information, but some of these do not contain any data at all.

In particular, aerial photographs provide high quality information that is generally independent of memory or documentation. They are only available at intervals of several years, so some gaps exist in the information from this source. The observed site features are open to different interpretations and can be affected by the time of day and/or year at which they were taken, as well as specific events, such as flooding. Care has been taken to consider different possible interpretations of aerial photographs and to consider them in conjunction with other lines of evidence.

6.4 Summary of Site History

The site history information suggests that the site has been primarily used for a mixture of low density agricultural (pastoral), dairy farming and rural residential purposes. Major services (gas and electricity) corridors run north to south and east to west in close proximity of the site, same as the UCS and Cataract Tunnel aqueduct which runs from south to north directions. Surrounding land uses are similar, with the exception of Appin Power Station to the south-east and Appin Colliery to the south-west.

⁵ <https://www.epa.nsw.gov.au/your-environment/contaminated-land/pfas-investigation-program> (Accessed 8 October 2024).

⁶ <http://www.rfs.nsw.gov.au/news-and-media/pfas-environmental-investigation> (Accessed 8 October 2024).

⁷ <https://defence.gov.au/bases/nsw/> (Accessed 8 October 2024).

⁸ https://geo.seed.nsw.gov.au/Public_View/index.html?viewer=Public_View&locale=en-AU (Accessed 8 October 2024).

7. Site Walk Over

On 30 March 2023 and 19 April 2023, a site walk over of Appin Part 2 Precinct was conducted by a DP Environmental Scientist to assess the site for PAEC. All walk overs were undertaken on foot, and mapping reference points (MRP) were recorded for key observations. Photographs were also taken of MRP. The MRP are shown on Drawings 11a and b, and photographic plates are provided in Appendix D.

7.1 March and April 2023 (Part 2 Areas)

The following key features were observed:

- Seven farm dams were present on Lot 32, DP736923 (Lot 32), the majority of which, from inspection of the surface, appeared to have embankments constructed from locally derived material. Sandstone boulders were present within the embankment at Key Feature Reference (KFR) 267, (MRP 121), which indicates a possible presence of fill;
- The following was observed in the north-eastern and eastern portions of Lot 32, and Lot 1 DP1000355:
 - o Two stockpiles of quarried materials (MRP 122) and one stockpile of crushed gravel and cobble material (MRP 123);
 - o Along the dam embankment (262), an old, corroded internal combustion engine water pump was observed (MRP 124);
 - o Scrap metal was observed in the vicinity (MRP 125);
 - o An area of raised fill material was present, likely to be utilised as a ramp for direct loading (of horses) into trucks for transportation (MRP 126);
 - o The unsealed road adjoining Macquariedale Road comprised gravelly (MRP 127) and crushed rock fill material (MRP 128);
 - o Residential dwellings and associated structures (e.g. sheds, garages) were present in the eastern portion of Lot 32, comprising various COPC such as fill, septic tanks, refuse materials and metal sheds with an unsealed floor (KFR 275 and 263; MRP 129);
 - o Horse/animal pens and associated horse shelters comprising metal sheeting with unsealed flooring (KFR 277; MRP 130) were observed in the eastern portion of Lot 32. Two former fuel storage tanks were also present, one (MRP131) in the vicinity of MRP130, the other (MRP132; KFR 279) approximately 130 m south-west, both of which were reutilised for water pumping and storage for animal drinking purposes; and
 - o Additional horse shelters with metal sheeting and unsealed floors were present further south. (KFR 282; MRP 133).
- Areas of potential fill gullies were identified throughout Lot 32, in the vicinity of the various on-site farm dams (MRP 134);
- In the northern portion of Lot 32, a raised area, i.e., a berm, was observed, however, was identified as likely comprising natural soil and rock material (MRP 135);
- An area of 'cut and fill' was observed in the south-western portion of Lot 32 (MRP 136), whereby possible fill material was stockpiled adjacent to the area it was cut;

- Timber power poles were present in the central portion of Lot 32, positioned in a north-south direction (MRP 137);
- Crushed rock fill material was exposed in the surface of the soil in the eastern portion of Lot 32 (MRP 138);
- Six farm dams were present on Lot 3, DP804375 (Lot 3), all of which contain possible filling associated with the dam wall (MRPs 139, 140, 143, 145 (limited access), and 149; KFR 264b, 265, 273a, and 271);
- Chopped tree trunks (organic material) were observed to be lain in the eastern (MRP 141, KFR 271) and southern portions (KFR 284) of Lot 3. At 284, trace geotextile fabric and scrap metal were also observed;
- Gully/creek lines were observed in the eastern and northern portions of Lot 3, where trace refuse material in the form of metal sheeting/scraps (MRP 142), and a glass bottle (MRP 144) were identified;
- A dilapidated shed constructed of metal corrugated sheeting on an unsealed soil base was observed and refuse material (metal, timber, plastic) and building demolition waste (bricks) was found inside the shed and/or in the immediate surroundings (MRP 146, KFR 273b);
- Exposed gravelly fill material was observed in the eastern portion of Lot 3 (MRPs 147 and 148 – adjoining an unsealed gravelly driveway);
- An old, empty, corroded oil drum was visible in the eastern portion of Lot 3 (MRP 150);
- Ground disturbance was observed in the southern portion of Lot 3 (MRP 151); and
- An area of fly-tipping/dumped refuse material including timber, geotextile fabric, metal scraps, plastic and building demolition waste including concrete and bricks was identified in the southern portion of Lot 3 (MRP 152).

8. Potential Areas of Environmental Concern

The findings of the desktop study and the site walk over were reviewed to identify whether or not key features and MRP are potential areas of environmental concern (PAEC) which warrant further investigation. If any of the PAEC indicate the potential for widespread contamination, then the need for further investigation to inform rezoning was considered. If PAEC were considered indicative of potential localised contamination, further investigations would be required to inform future Development Applications (DA).

No evidence of significant widespread potential contamination was observed in the desktop study, or the site walk over. Table B.1 in Appendix B presents the key features and MRP that were identified as requiring further investigation and Table B.2. shows these grouped into PAEC categories, which can be summarised into twelve PAEC categories as follows in Table 6.

Table 6: PAEC Categories Observed

PAEC Category Reference	PAEC Type	Description	Number of Areas
PAEC 1	Low density agricultural land use and localised plant cultivation and cattle yard	Use of pesticides and herbicides, as well as fuels and oils is common on agricultural sites, however the volume used is generally low and covers a large area.	1
PAEC 2	Current and historical farm dams	Dam walls may have been constructed using fill from elsewhere including construction and demolition waste. Sediments in farm dams often act as a sink for surface water runoff of diffuse source contamination, such as from surrounding agricultural land use, and localised use of fuels and oils. Illegal dumping of waste into dams can also often occur which can potentially impact soils, sediments and in some instances surrounding surface water bodies and groundwater	14
PAEC 3	Areas of possible filling	The source of filling is unknown and may include construction and demolition waste, as well as burial of domestic refuse.	20
PAEC 4	Current and historical structures	Many of the current and historical structures on site were constructed when asbestos and lead-based paints were in use in Australia. A fill platform is often constructed below structures and the source of fill (much like PAEC 3) is not known.	3
PAEC 5	Stockpiles and soil mounds	Stockpiles and soil mounds, some of which contain construction and demolition materials which is often linked with the presence of hazardous building materials, including asbestos.	3
PAEC 8	Illegal dumping and fly tipping	Localised areas of illegal dumping and fly tipping either on the site surface or in gullies which can often include discarded fuels, oils and construction and demolition waste including asbestos.	4
PAEC 9	Timber power poles	Power is serviced using a network of timber power poles which are coated with a chemical to prevent corrosion of the pole. Weathering of this chemical over time is known to impact surrounding soils with metals and hydrocarbons.	1
PAEC 10	Above-ground storage tanks/fuel storage areas	Three storage tanks were observed on the site which may or may not have in the past been used to store oils, fuels and/or chemicals	3

The PSI for Appin Part 1 (DP, 2022)¹³ included additional PAEC categories, consequently potential sources, including Coal seam gas network and wells (PAEC 6, and S6), coal wash filling on the site surface (PAEC 7 and S7), a fenced off area of which the purpose and history of usage is unclear (PAEC 11 and S11) and a small possible livestock burial area (PAEC 12 and 12), which have not been identified within the Appin Part 2 – the subject site.

The PAEC category types observed at the site are typical of such similar sites in the general region. A total of 47 individual PAECs were recorded across the site. Of the 47 individual PAEC, the most common type was farm dams (approximately 58%). The location of each PAEC is shown on Drawings 12a to b, Appendix A.

9. Preliminary Conceptual Site Model

A conceptual site model (CSM) is a representation of site-related information regarding contamination sources, receptors and exposure pathways between those sources and receptors. The CSM provides the framework for identifying the types of potential contamination at the site and how sensitive receptors may be exposed to such contamination, i.e.: it enables an assessment of the potential source - pathway - receptor linkages (complete pathways).

Potential Sources

A number of key site features were recorded in the desktop study and site walk over that can potentially indicate the presence of localised contamination and, as such have been recorded as PAEC which have been broadly categorised into the following source types and their associated contaminants of potential concern (CoPC):

- S1: Low density agricultural land use and localised instances of plant cultivation and a cattle yard. CoPC include metals, organochlorine pesticides (OCP), organophosphorus pesticides (OCP) and nutrients;
- S2: Current and historical farm dams. CoPC include metals, total recoverable hydrocarbons (TRH), benzene, toluene, ethylbenzene, xylene (BTEX), polycyclic aromatic hydrocarbons (PAH), polychlorinated biphenyls (PCB), total phenols and asbestos;
- S3: Possible filling. CoPC include metals, TRH, BTEX, PAH, PCBs, total phenols and asbestos;
- S4: Current and historical structures. CoPC include (for residual building materials) asbestos, PCBs and lead; (for fill in building footprints) metals, TRH, BTEX, PAH, PCBs, total phenols and asbestos;
- S5: Stockpiles and soil mounds. CoPC include metals, TRH, BTEX, PAH, PCBs, total phenols and asbestos;
- S8: Illegal dumping and fly tipping. CoPC include metals, TRH, BTEX, PAH, PCBs, total phenols and asbestos; and
- S9: Timber power poles. CoPC include metals, TRH, BTEX, PAH and total phenols.

¹³ DP (2022) *Report on Preliminary Site Investigation, Proposed Appin (Part) Precinct, Appin NSW*, DP ref. 76589.06.P.001.Rev3.PSI dated 12 October 2022.

Potential Receptors

The following potential human receptors have been identified:

- R1: Current users (rural residential);
- R2: Construction and maintenance workers;
- R3: End users (residential); and
- R4: Adjacent site users (residential).

The following potential environmental receptors have been identified:

- R5: Surface water (freshwater bodies including Ousedale Creek, Elladale Creek, Simpsons Creek, Cataract River and the Nepean River);
- R6: Groundwater (limited beneficial use – saline groundwater present in primarily sandstones at > 50 m depth); and
- R7: Terrestrial ecology.

Potential Pathways

The following potential pathways have been identified:

- P1: Ingestion and dermal contact;
- P2: Inhalation of dust and/or ground gas and vapours;
- P3: Surface water run-off;
- P4: Lateral migration of groundwater providing base flow to water bodies;
- P5: Leaching of contaminants and vertical migration into groundwater; and
- P6: Contact with terrestrial ecology.

Summary of Potentially Complete Exposure Pathways

A 'source – pathway - receptor' approach has been used to assess the potential risks of harm being caused to human or environmental receptors from contamination sources on or in the vicinity of the site, via exposure pathways (potential complete pathways). The possible pathways between the above sources (S1 to S11) and receptors (R1 to R7) are provided in Table 7 below.

Table 7: Summary of Potentially Complete Exposure Pathways

Source and COPC	Transport Pathway	Receptor
S1: Low density agricultural land use/plant cultivation/cattle yard	P1: Ingestion and dermal contact P2: Inhalation of dust and/or vapours P3: Surface water run-off P4: Lateral migration of groundwater providing base flow to water bodies P5: Leaching of contaminants and vertical migration into groundwater P6: Contact with terrestrial ecology	R1: Current users (rural residential) R2: Construction and maintenance workers R3: End users (residential) R4: Adjacent site users (residential) R5: Surface water bodies R6: Groundwater R7: Terrestrial ecology
S2: Current/historical farm dams	P1 – P6	R1 – R6
S3: Possible filling	P1 – P6	R1 – R6
S4: Current/historical structures	P1 – P6	R1 – R6
S5: Stockpiles soil mounds	P1 – P6	R1 – R6
S8: Illegal dumping/fly tipping	P1 – P6	R1 – R6
S9: Timber power poles	P1 – P6	R1 – R6

10. Discussion

The scope of the PSI included a review of regional mapping, online Government databases and historical aerial photographs (desktop study) and a site walk over. The historical aerial photograph review identified a total of 25 key site features which were broadly summarised into the following types:

- Ground disturbance which may indicate the installation of below ground structures/services, filling or quarrying activities;
- Small structures (e.g. animal shelters, pump sheds and storage sheds);
- Farm dams;
- Low density agricultural activity (e.g. fields enclosed in a fenced area);
- Possible horticultural or orchard farming;
- Possible building footprints;
- Structures (farm buildings, residences); Stockpiles;
- Tracks, including racetracks;

- Material storage areas; and
- Possible airport.

The site walk over included review of select key features, as well as a walk over of accessible portions of the site. The findings of the site walk over were used to eliminate or confirm key features as PAEC.

A total of 47 individual PAECs were observed on the site which were broadly characterised in the following PAEC categories:

- PAEC Category 1: Low density agricultural land use and localised plant cultivation and cattle yard;
- PAEC Category 2: Current and historical farm dams;
- PAEC Category 3: Areas of possible filling;
- PAEC Category 4: Current and historical structures;
- PAEC Category 5: Stockpiles and soil mounds;
- PAEC Category 8: Illegal dumping and fly tipping;
- PAEC Category 9: Timber power poles; and
- PAEC Category 10: Above-ground storage tanks.

10.1 Risk Management Actions

PAEC references and recommendations for future works ('risk management actions') for each PAEC are provided in Table B1, Appendix A. Risk management actions have been qualitatively provided based on whether the likelihood of significant contamination present is low, medium or high as follows:

Low: Contamination may or may not be present at these PAEC, however targeted investigations should be undertaken at a later stage (ie: for DA purposes) to assess accordingly. In the case of low-density agricultural land use, because any impact is likely to be consistent across a wider area, these targeted investigations can be undertaken as low-density investigations (one test pit per hectare). Based on DP regional experience and observations made both in the desktop study, the likelihood of significant contamination associated with PAEC characterised as 'low' risk is generally negligible.

Of the 47 individual PAEC observed, 27 (57 %) were characterised 'low' risk.

Several PAEC have been characterised as 'low – medium' risk for PAEC where contamination has not been sighted but based on regional DP experience localised impact is likely present but not confirmed. These PAEC are primarily current and former structures which, based on their age, potentially contain hazardous building materials in the building fabric which when poorly demolished or left to disintegrate or the surrounding soil is disturbed can impact surrounding soil conditions. Infilled dams have also been included as 'low – medium' risk PAEC because the quality of fill is unknown at this time.

Of the 47 PAEC observed, 17 (36 %) were characterised as 'low – medium' risk.

Medium: PAEC characterised as having a 'medium' risk rating are either localised contamination observed on site or PAEC where site conditions indicated localised contamination is potentially present. These PAEC are typical of the region and are not considered to be significant contaminant constraints to development (in the context of rezoning), but it is likely that some form of management or remediation will be required for DA purposes. Targeted investigations of these PAEC will be required to inform DA and (if required) remediation/management plans.

PAEC characterised as 'medium' risk include the coal seam gas well and network present on site where contamination may be present associated with drilling operations for the wells and leaks along the pipe network interconnecting the wells. Contamination investigations may include investigating for any hazardous ground gases that may be sourced from this PAEC. Depending on the findings of contamination investigations, some form of barrier or seal may be required between the coal seam gas network and the development.

Of the 47 individual PAEC observed, 3 (6 %) were characterised 'medium' risk.

High: PAEC characterised as having a 'high' risk rating are PAEC types where significant and/or widespread contamination has been observed which may mean any management/remediation measures required to render the site suitable for rezoning to be cost prohibitive or technically infeasible. Sites where an immediate risk to human health and the environment and require notification to the NSW EPA (under Section 60 of the Contaminated Land Management Act 1997) would also be characterised as 'high' risk.

There are no PAEC characterised as 'high' risk on the site at this time.

11. Conclusions and Recommendations

Localised evidence of contamination was observed at the site which was typical for a site of this type and for the general region. Targeted investigations should be undertaken, in the form of a Detailed Site Investigation (DSI) to inform any future DA for the proposed development. Portions of the site that were not accessible during the walk over should be inspected as part of the DSI. If remediation is required to render the site suitable for the proposed development, a Remediation Action Plan (RAP) will be required to document remediation and validation works required to resolve any contamination identified in the DSI.

Based on the findings of the PSI, the potential for significant, widespread contamination to be present at the site with respect to the proposed development is generally low and, as such the site is deemed suitable, from a contamination perspective, for proposed rezoning for mixed land use including residential.

12. Limitations

Douglas Partners Pty Ltd (DP) has prepared this report (or services) for this project at Appin, NSW in accordance with DP's proposal MAC200172 dated 12 June 2020 and DP's email proposal dated 1 February 2023. The work was carried out under contract with Walker Corporation and engaged by email from Walker Corporation dated 15 June 2020. This report is provided for the exclusive use of Walker Corporation for this project only and for the purposes as described in the report. It should not be used by or relied upon for other projects or purposes on the same or other site or by a third party. Any party so relying upon this report beyond its exclusive use and purpose as stated above, and without the express written consent of DP, does so entirely at its own risk and without recourse to DP for any loss or damage. In preparing this report DP has necessarily relied upon information provided by the client and/or their agents.

The results provided in the report are indicative of the subsurface conditions on the site only at the specific sampling and/or testing locations, and then only to the depths investigated and at the time the work was carried out. Subsurface conditions can change abruptly due to variable geological processes and also as a result of human influences. Such changes may occur after DP's field testing has been completed.

DP's advice is based upon the conditions encountered during this investigation. The accuracy of the advice provided by DP in this report may be affected by undetected variations in ground conditions across the site between and beyond the sampling and/or testing locations. The advice may also be limited by budget constraints imposed by others or by site accessibility.

This report must be read in conjunction with all of the attached and should be kept in its entirety without separation of individual pages or sections. DP cannot be held responsible for interpretations or conclusions made by others unless they are supported by an expressed statement, interpretation, outcome or conclusion stated in this report.

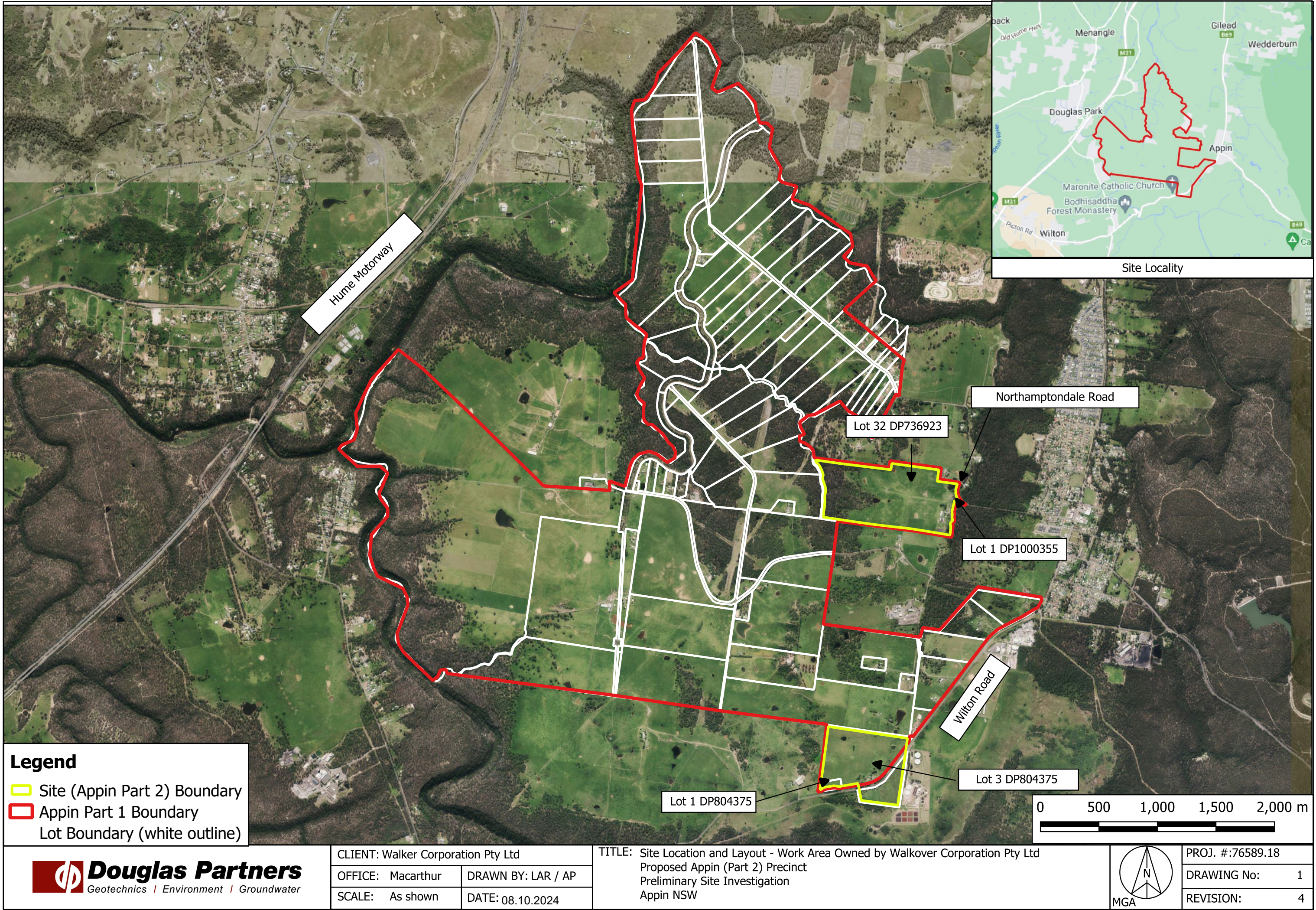
This report, or sections from this report, should not be used as part of a specification for a project, without review and agreement by DP. This is because this report has been written as advice and opinion rather than instructions for construction.

The contents of this report do not constitute formal design components such as are required, by the Health and Safety Legislation and Regulations, to be included in a Safety Report specifying the hazards likely to be encountered during construction and the controls required to mitigate risk. This design process requires risk assessment to be undertaken, with such assessment being dependent upon factors relating to likelihood of occurrence and consequences of damage to property and to life. This, in turn, requires project data and analysis presently beyond the knowledge and project role respectively of DP. DP may be able, however, to assist the client in carrying out a risk assessment of potential hazards contained in the Comments section of this report, as an extension to the current scope of works, if so requested, and provided that suitable additional information is made available to DP. Any such risk assessment would, however, be necessarily restricted to the (geotechnical/environmental/groundwater) components set out in this report and to their application by the project designers to project design, construction, maintenance and demolition.

Douglas Partners Pty Ltd

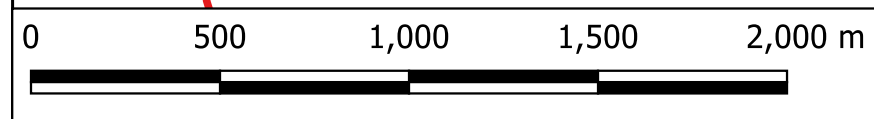
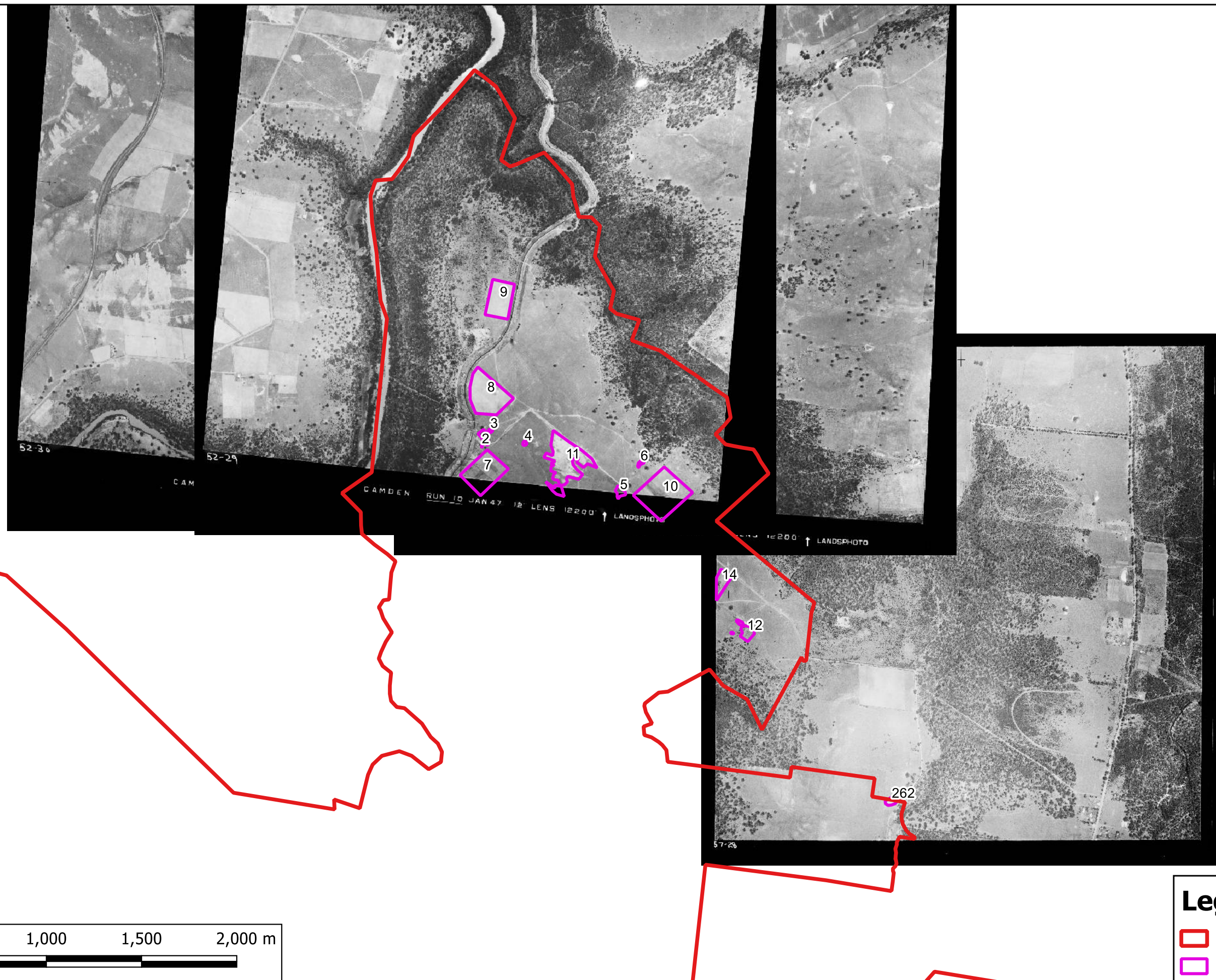
Appendix A

Drawings
About This Report



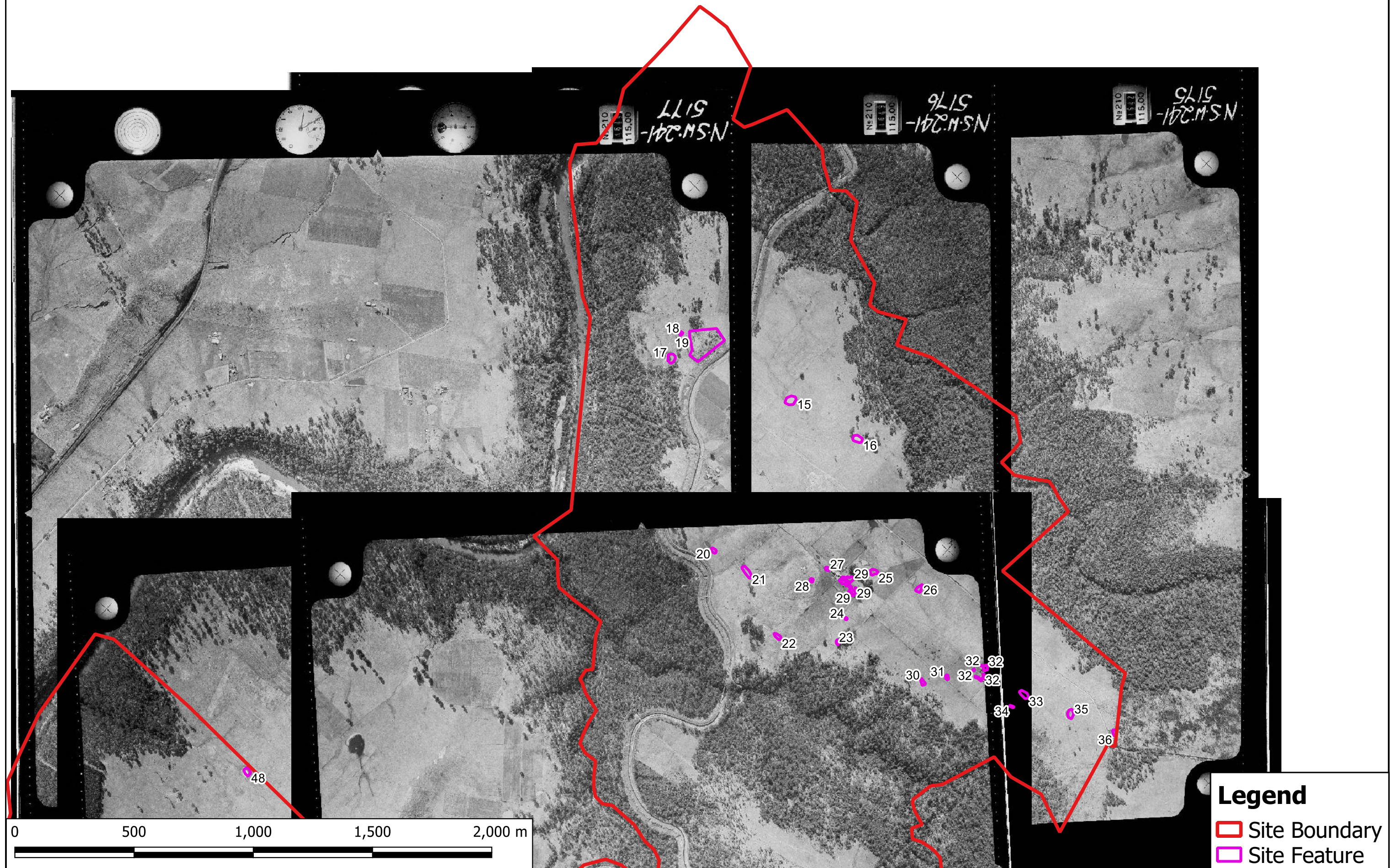
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- Appin Part 1 Boundary
- Lot Boundary (white outline)

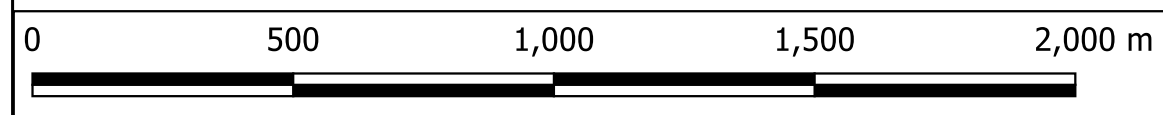
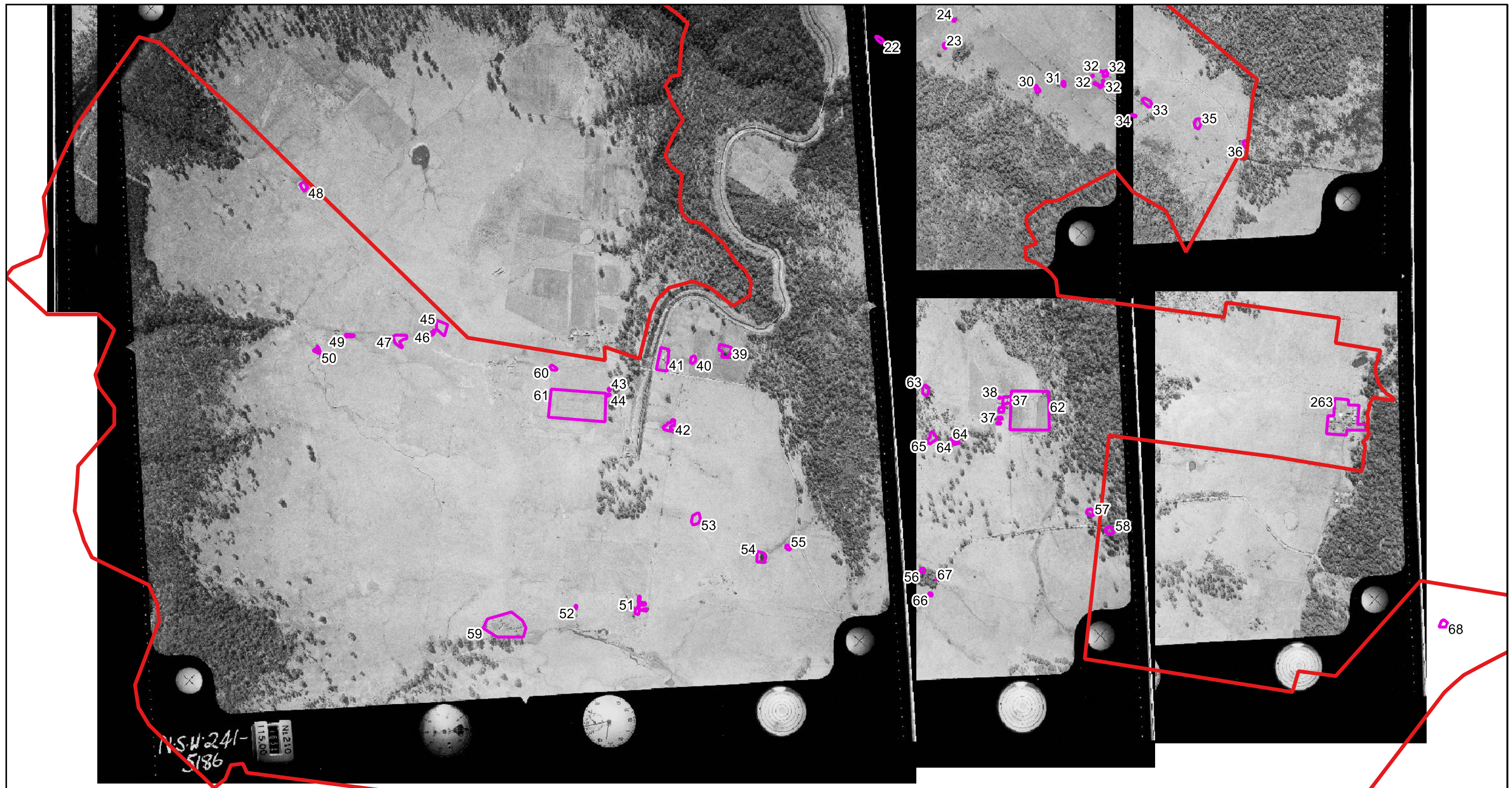


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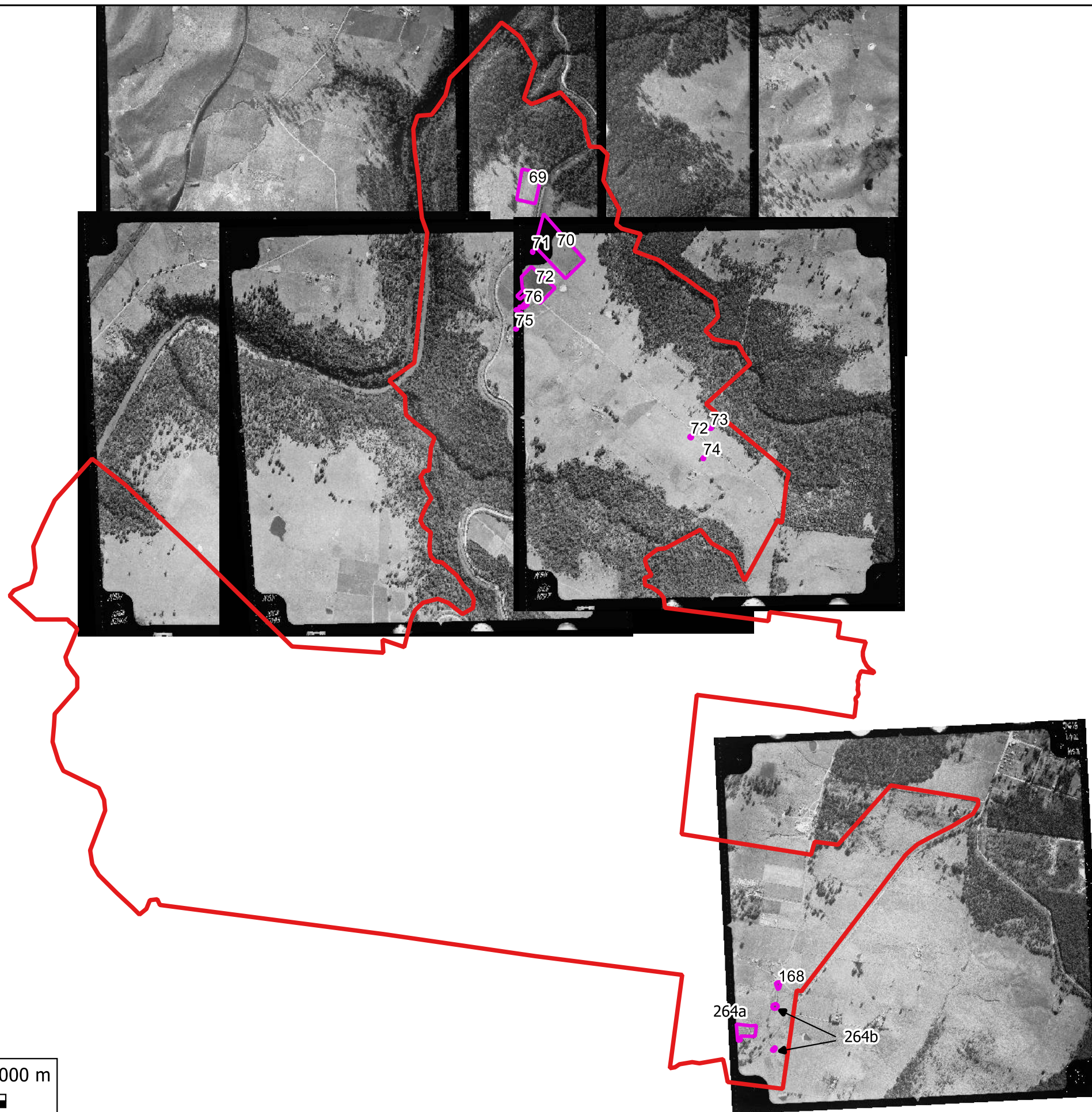


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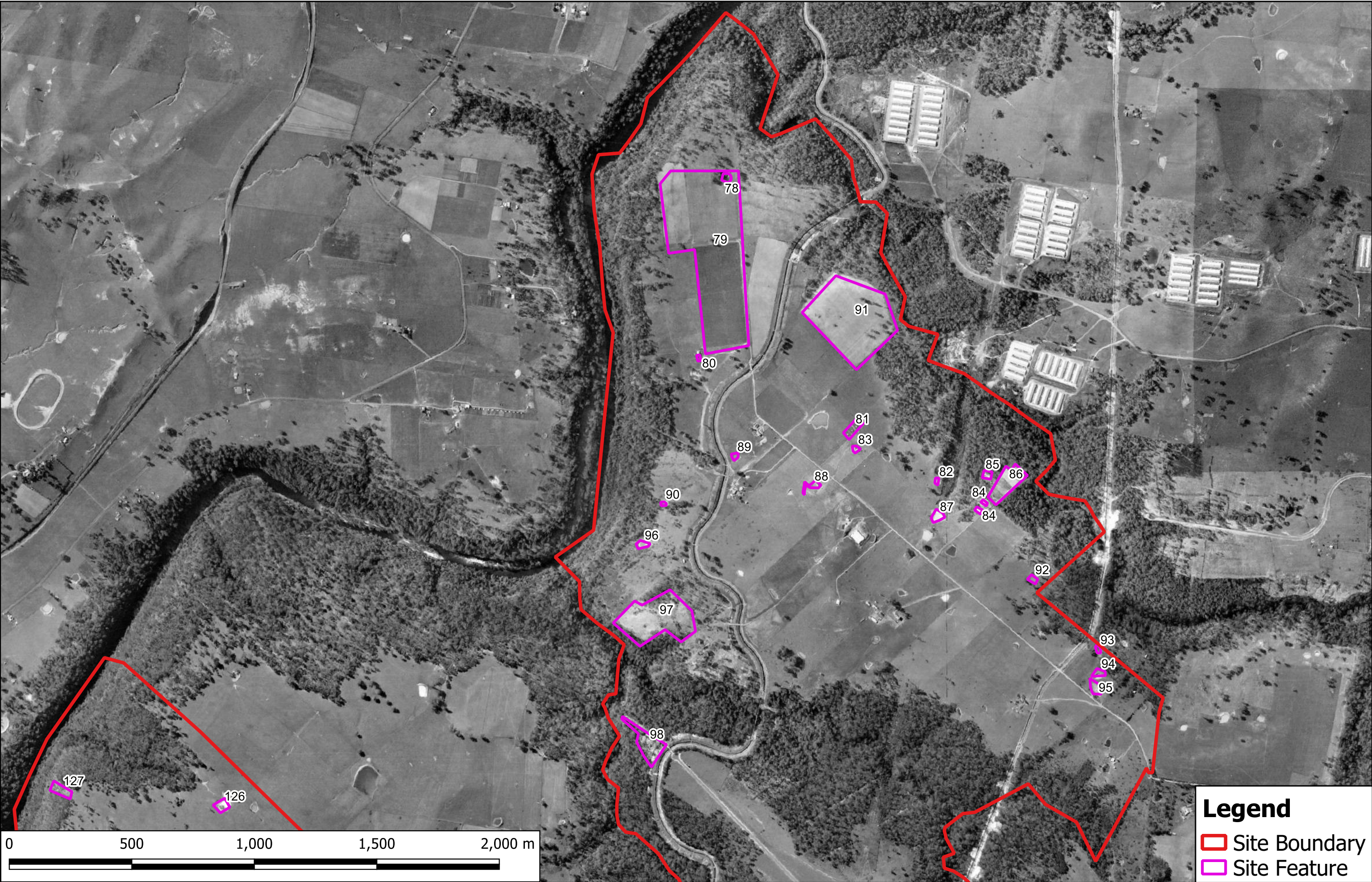
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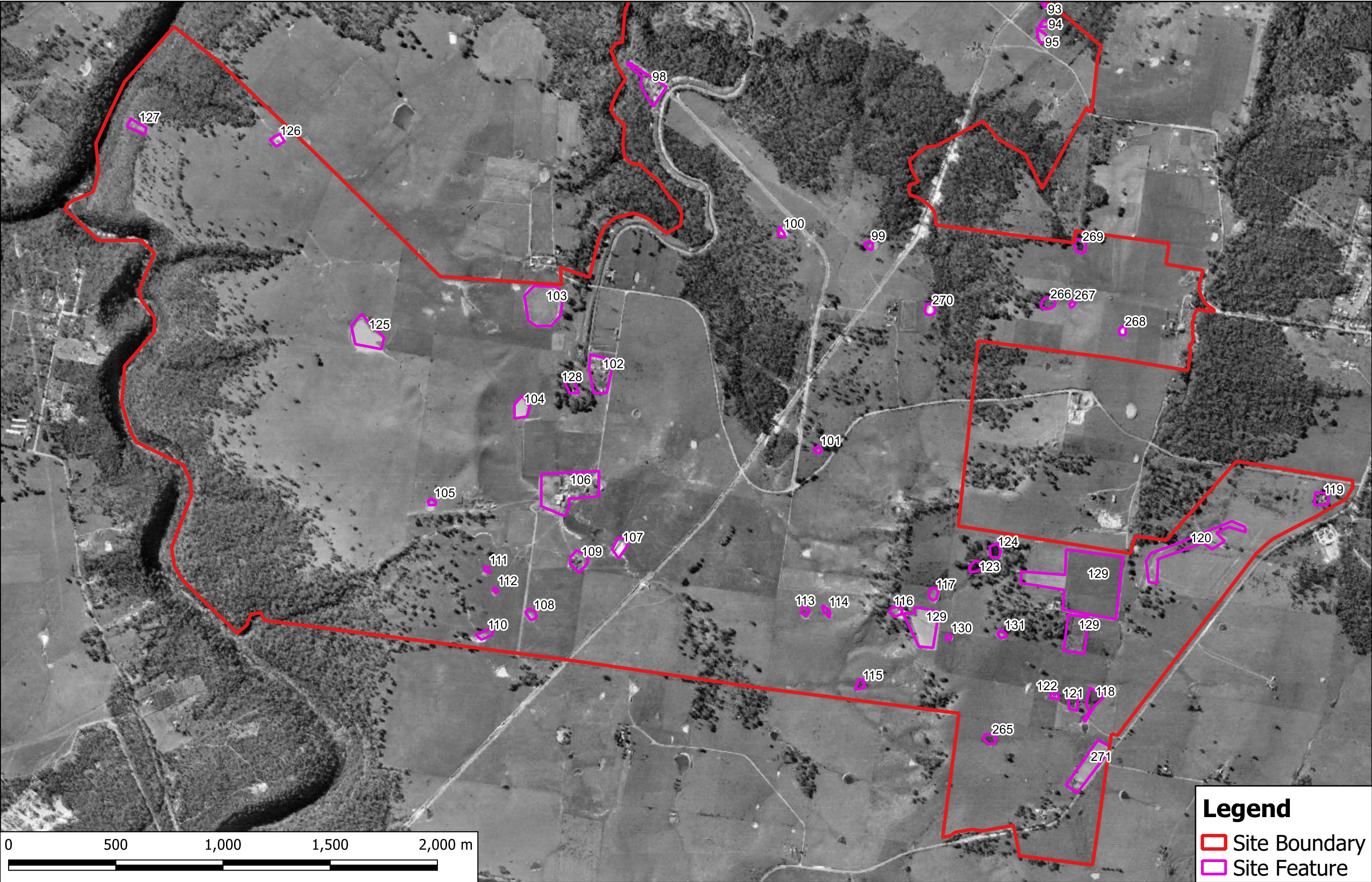


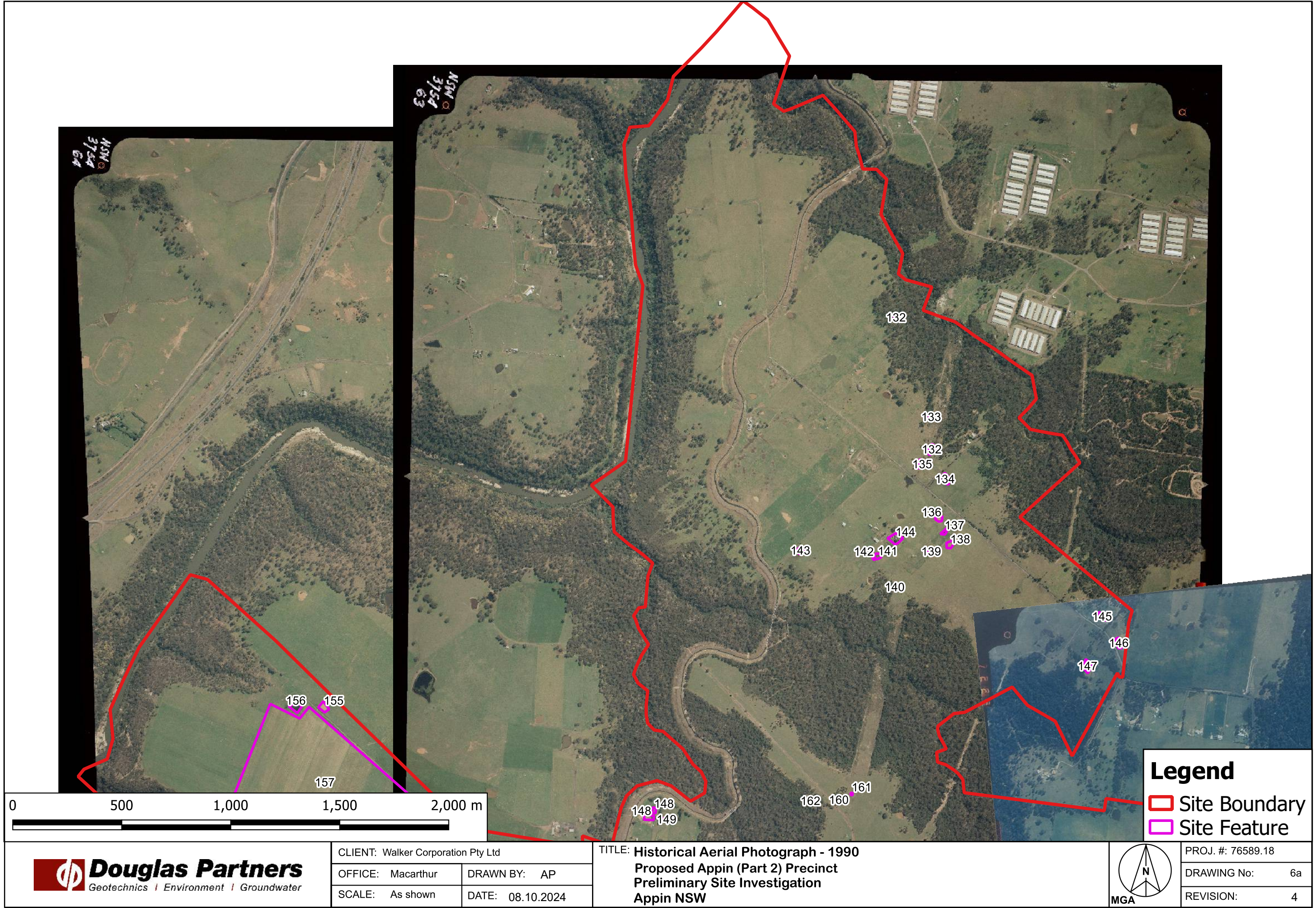
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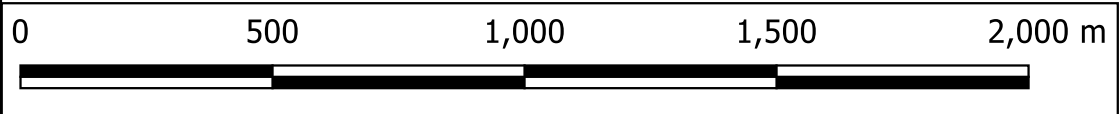
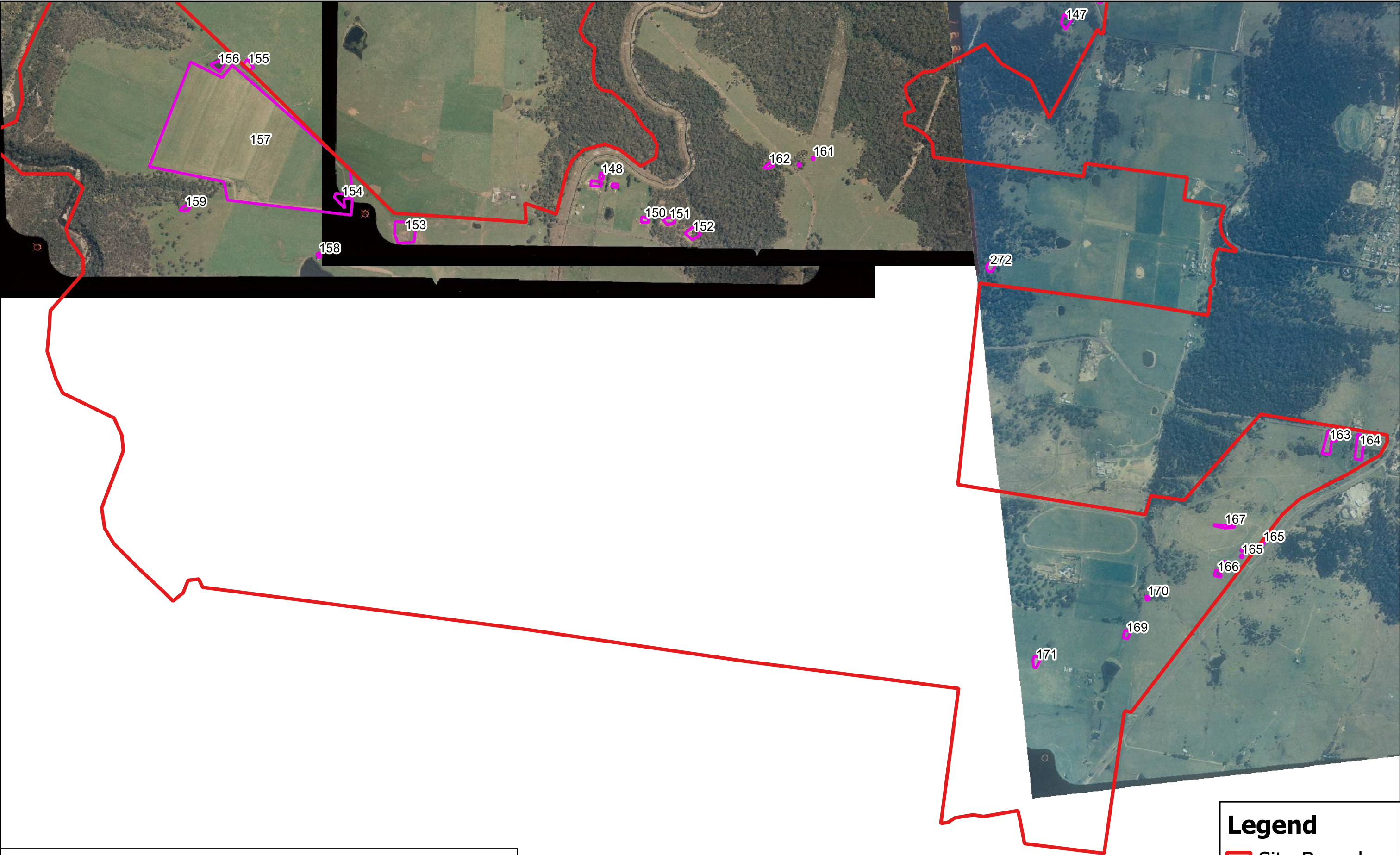
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Proposed Appin (Part 2) Precinct
Preliminary Site Investigation
Appin NSW



PROJ. #: 76589.18	
DRAWING No:	5a
REVISION:	4







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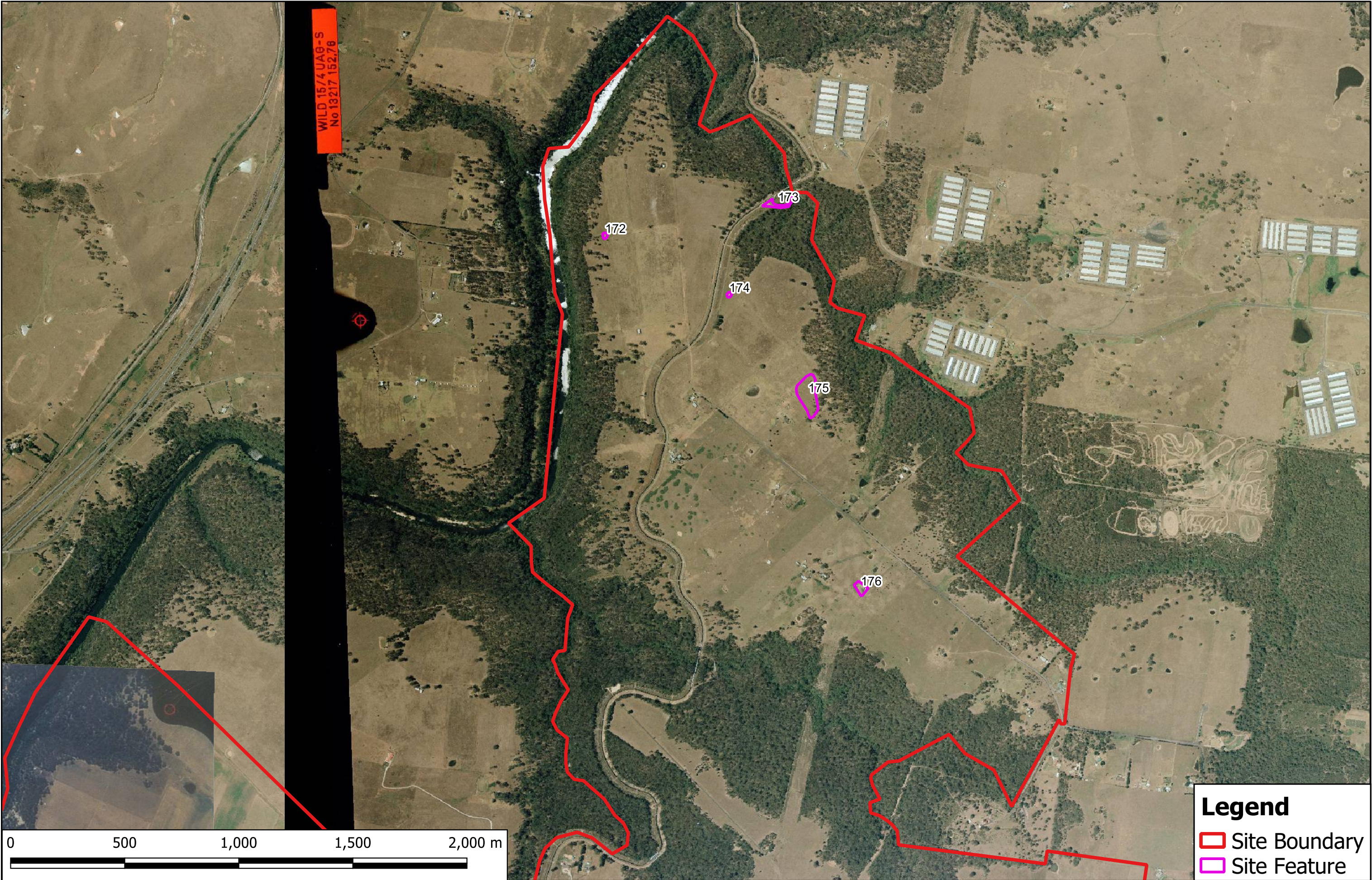




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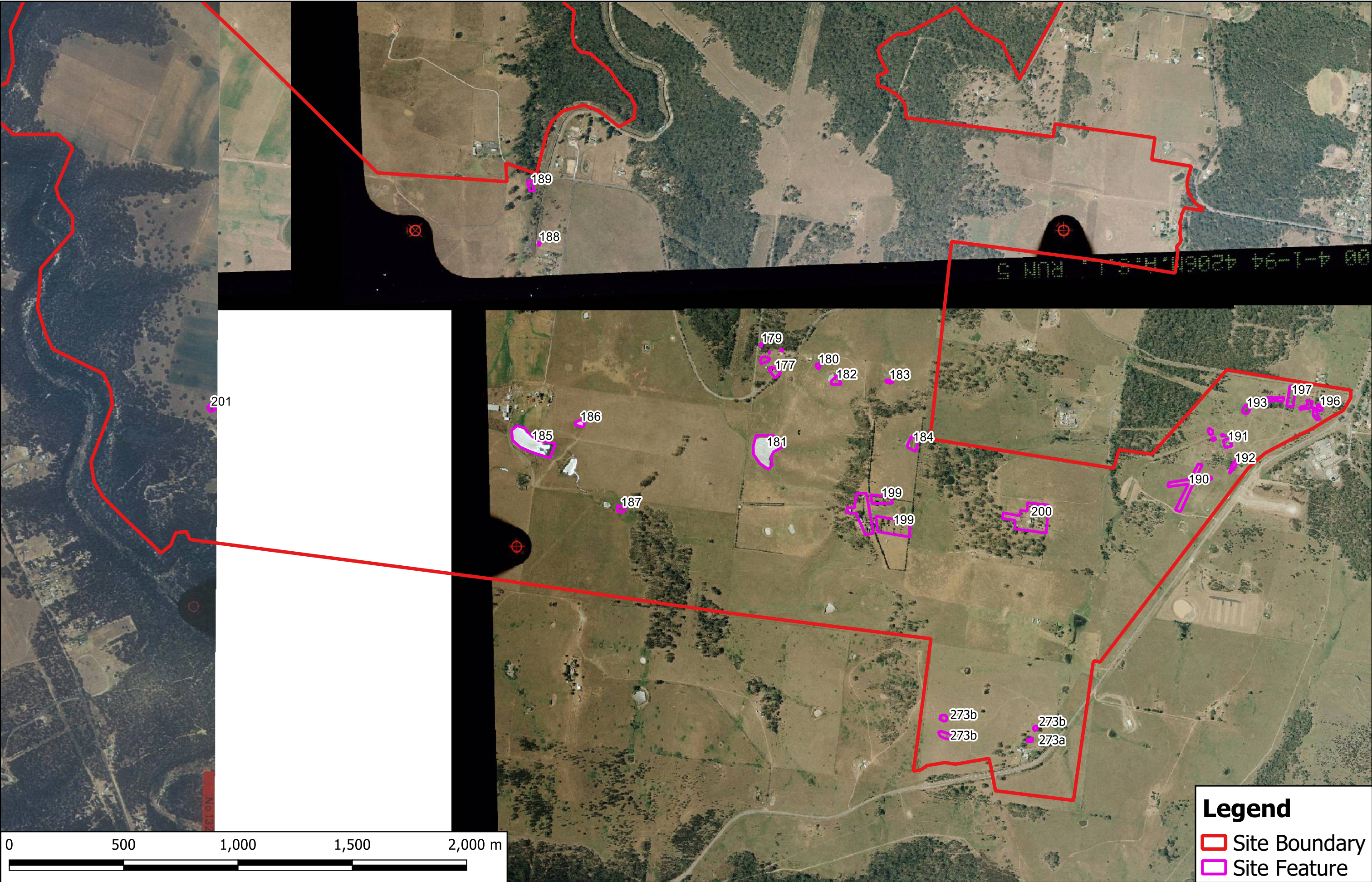
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Preliminary Site Investigation
Appin NSW

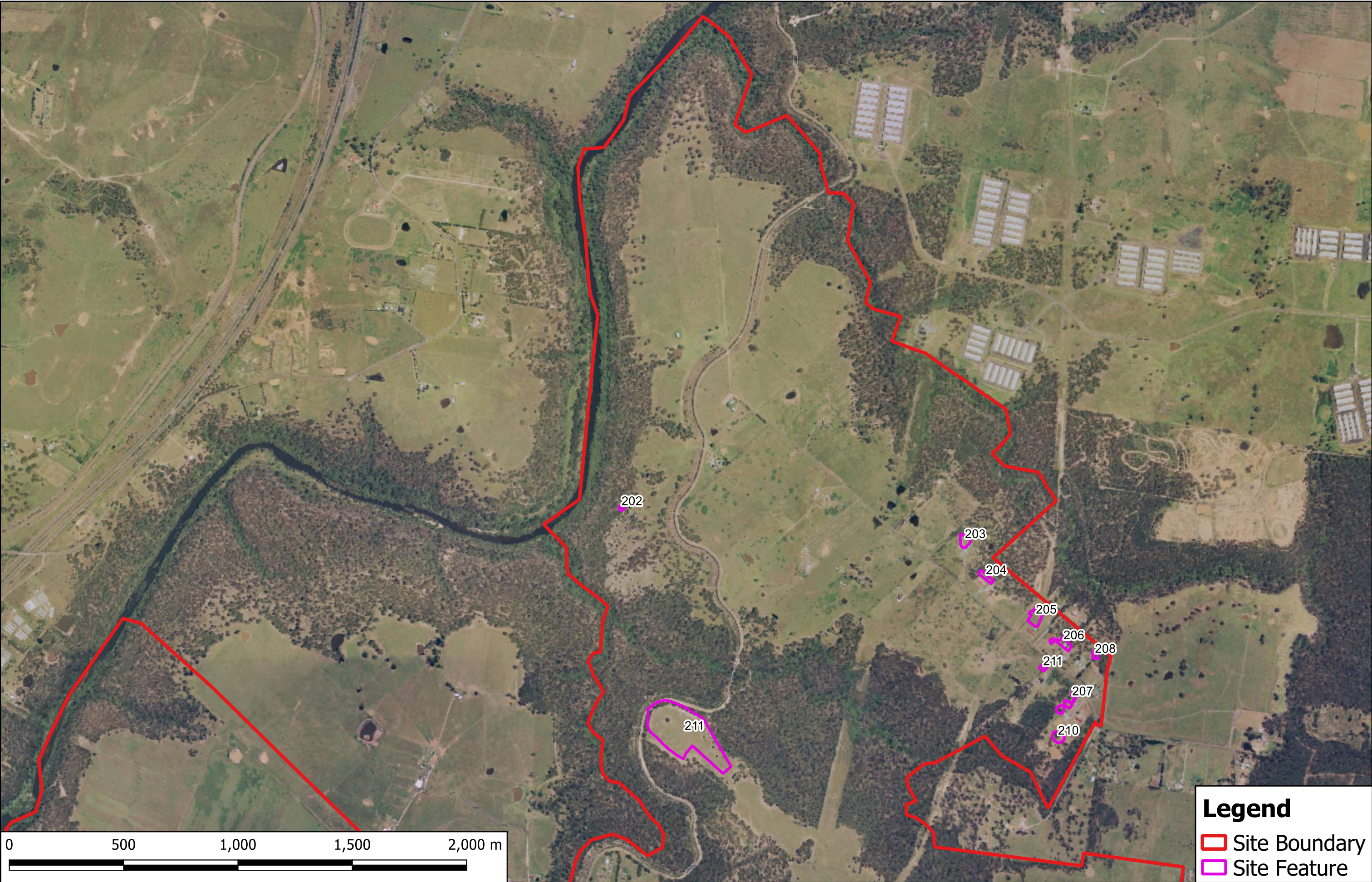




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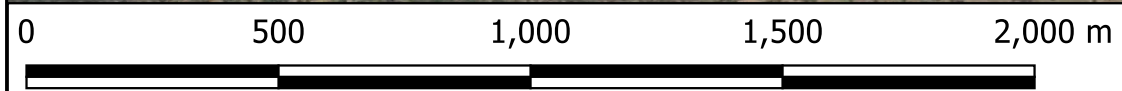
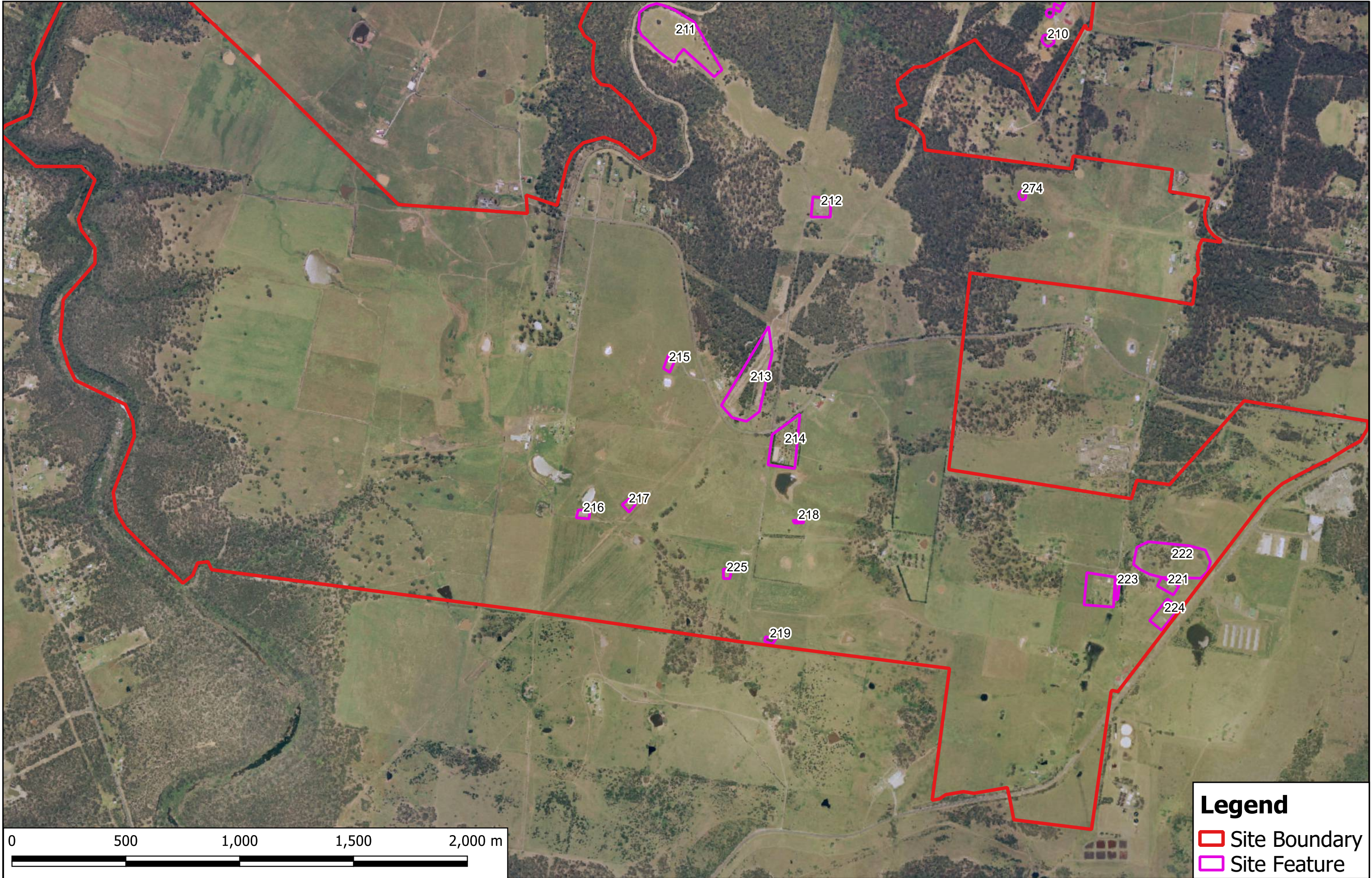


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 Douglas Partners <i>Geotechnics Environment Groundwater</i>	CLIENT: Walker Corporation Pty Ltd		TITLE: Historical Aerial Photograph - 2005 Proposed Appin (Part 2) Precinct Preliminary Site Investigation Appin NSW		PROJ. #: 76589.18
	OFFICE: Macarthur	DRAWN BY: AP			DRAWING No: 8a
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- Site Feature

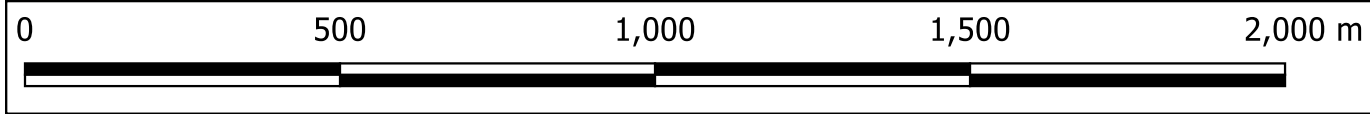
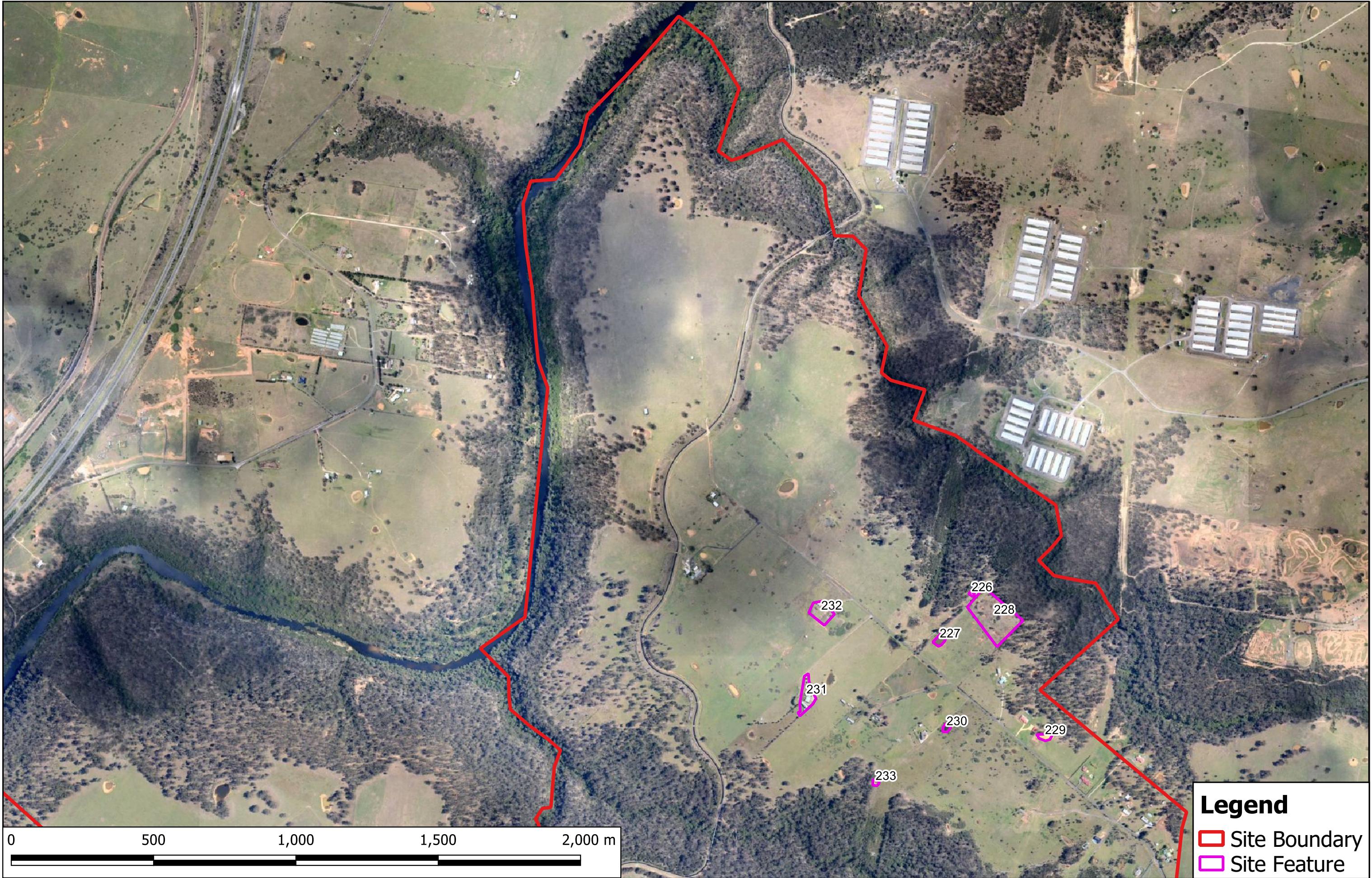




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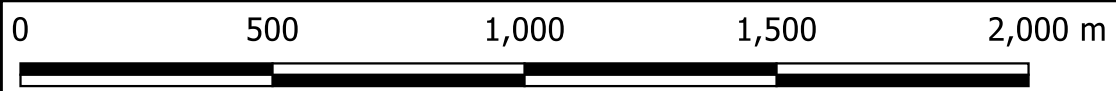
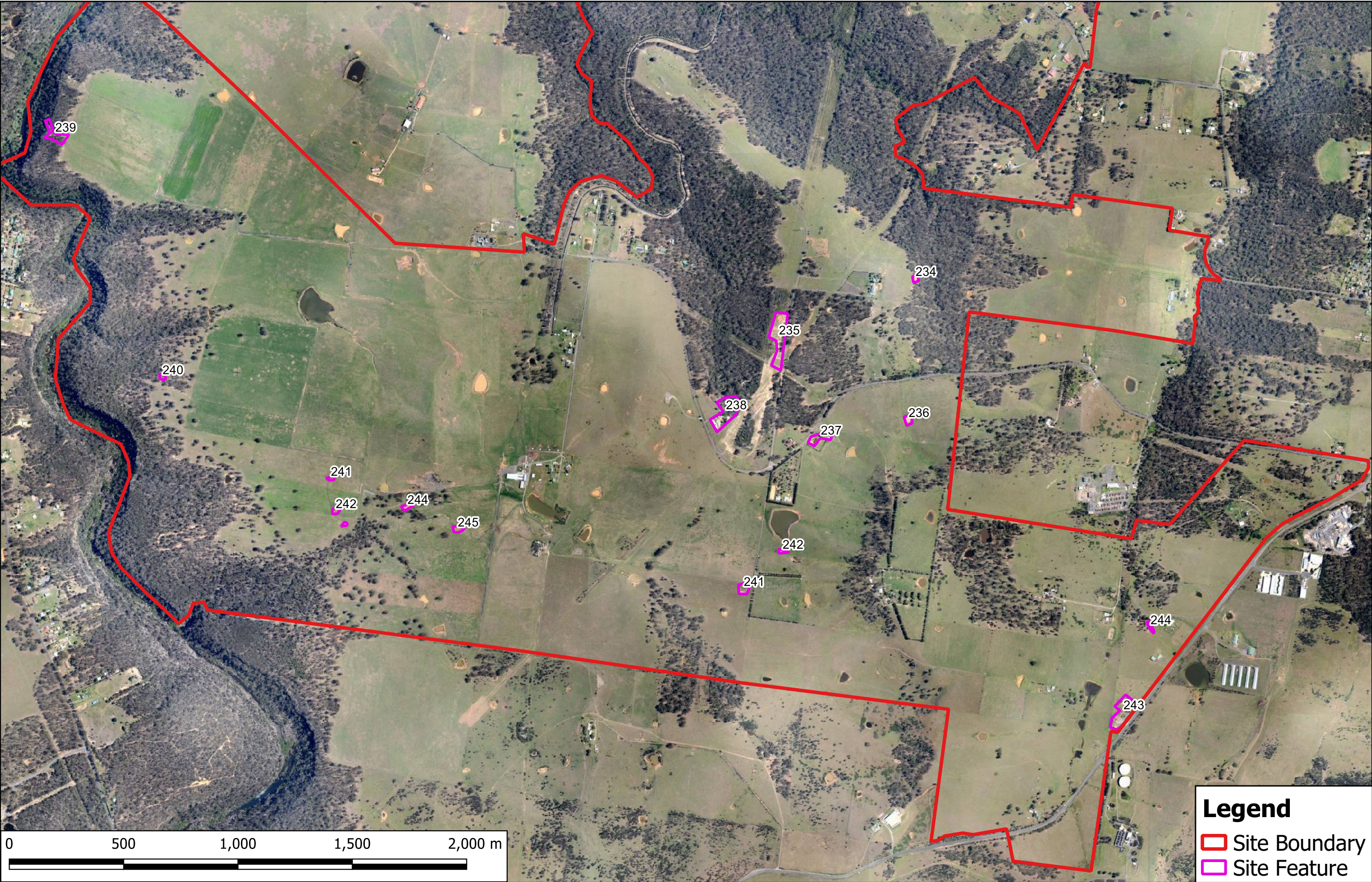
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Preliminary Site Investigation
Appin NSW



PROJ. #: 76589.18	
DRAWING No:	8b
REVISION:	4



 Douglas Partners <i>Geotechnics Environment Groundwater</i>	CLIENT: Walker Corporation Pty Ltd		TITLE: Historical Aerial Photograph - 2010 Proposed Appin (Part 2) Precinct Preliminary Site Investigation Appin NSW	 MGA	PROJ. #: 76589.18	
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- Site Feature

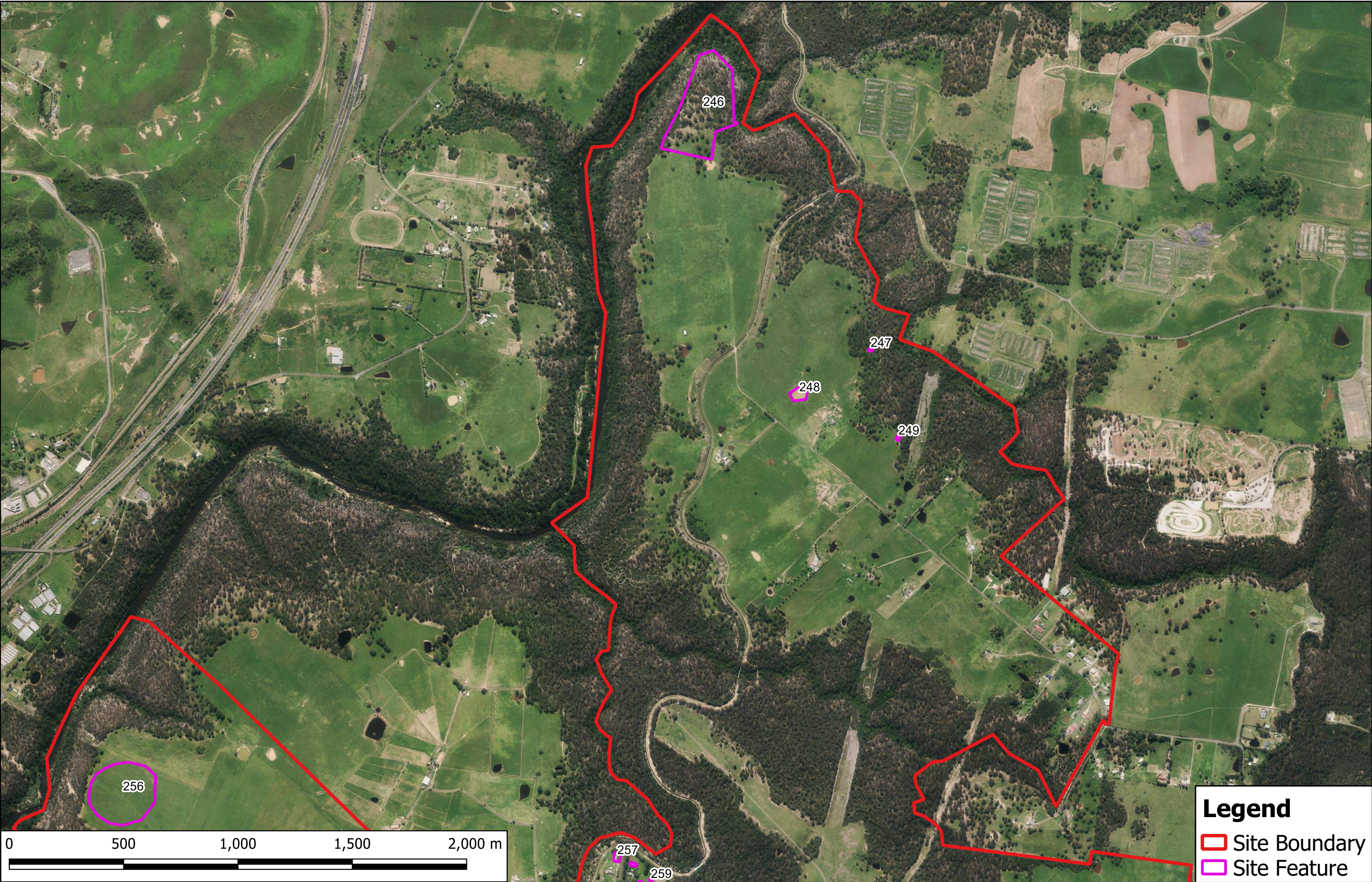


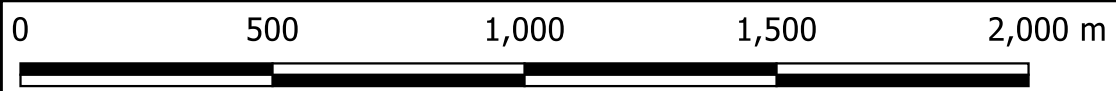
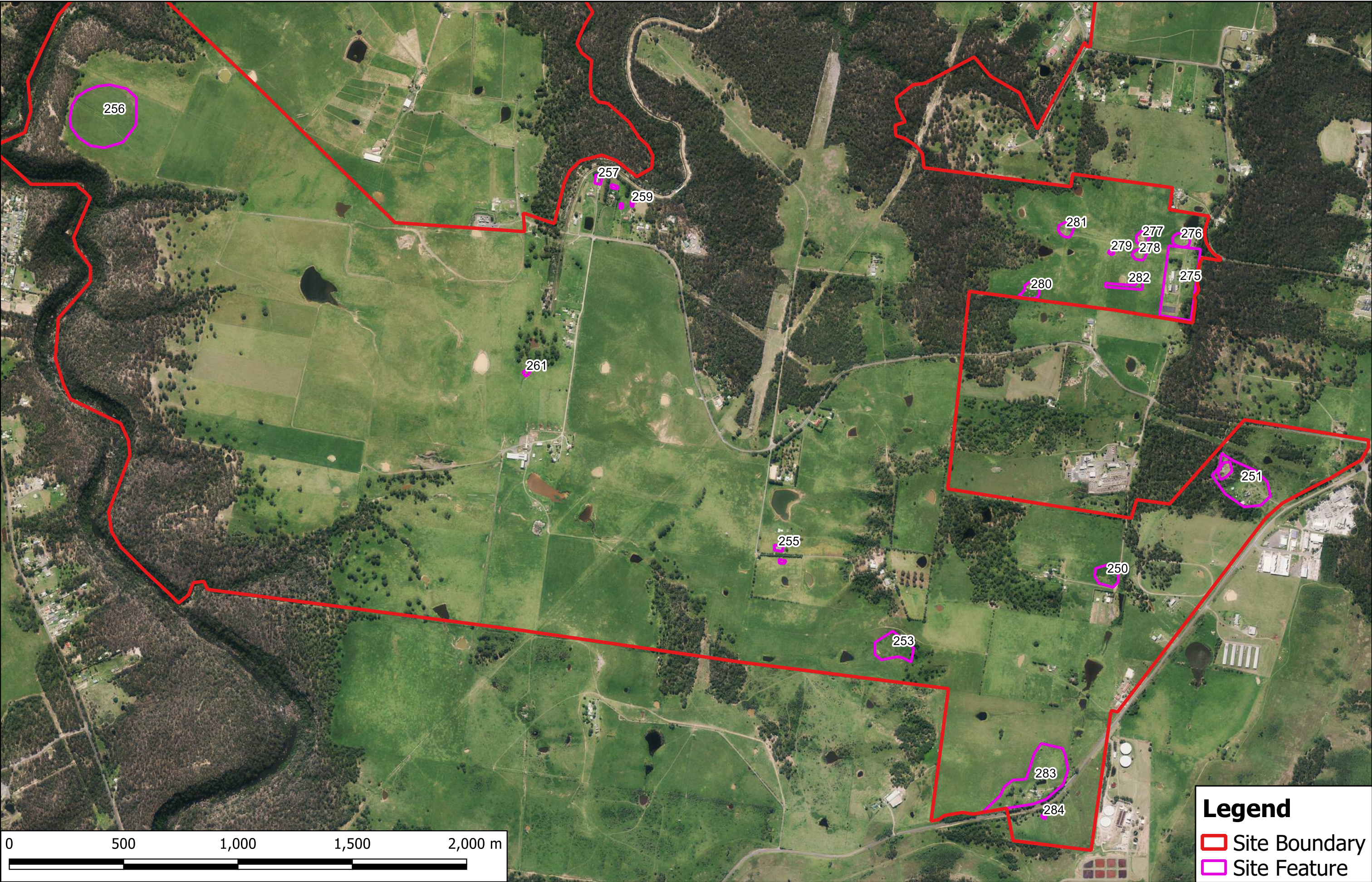
CLIENT: Walker Corporation Pty Ltd	
OFFICE: Macarthur	DRAWN BY: AP
SCALE: As shown	DATE: 08.10.2024

TITLE: **Historical Aerial Photograph - 2010**
Proposed Appin (Part 2) Precinct
Preliminary Site Investigation
Appin NSW



PROJ. #: 76589.18
DRAWING No: 9b
REVISION: 4





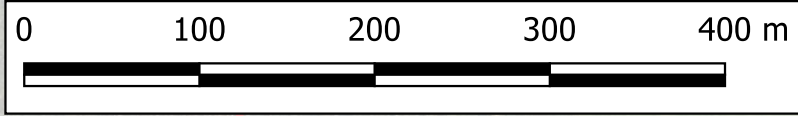
Legend

- ▭ Site Boundary
- ▭ Site Feature



Legend

- Site Boundary Part 1
- Site boundary Part 2 only
- Lots Part 2 (White outline)
- Environmental MRPs

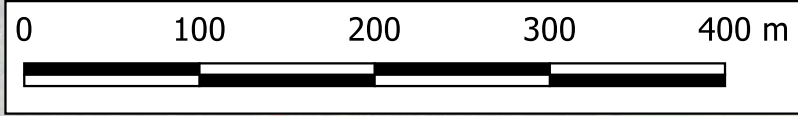







Legend

- Site Boundary Part 1
- Site boundary Part 2 only
- PAEC Locations
- Lots Part 2 (White outline)



	CLIENT: Walker Corporation Pty Ltd		TITLE: Location of PAECs - Lot 32 DP736923 and Lot 1 DP1000355 Proposed Appin (Part 2) Precinct Preliminary Site Investigation Appin NSW		PROJ. #: 76589.18
	OFFICE: Macarthur	DRAWN BY: LAR			DRAWING No: 12a
	SCALE: As shown	DATE: 08.10.2024			REVISION: 4



Legend

- Site Boundary Part 1
- Site boundary Part 2 only
- PAEC locations
- Lots Part 2 (White outline)

Introduction

These notes have been provided to amplify Douglas' report in regard to classification methods, field procedures and the comments section. Not all are necessarily relevant to all reports.

Douglas' reports are based on information gained from limited subsurface excavations and sampling, supplemented by knowledge of local geology and experience. For this reason, they must be regarded as interpretive rather than factual documents, limited to some extent by the scope of information on which they rely.

Copyright

This report is the property of Douglas Partners Pty Ltd. The report may only be used for the purpose for which it was commissioned and in accordance with the Engagement Terms for the commission supplied at the time of proposal. Unauthorised use of this report in any form whatsoever is prohibited.

Borehole and Test Pit Logs

The borehole and test pit logs presented in this report are an engineering and/or geological interpretation of the subsurface conditions, and their reliability will depend to some extent on frequency of sampling and the method of drilling or excavation. Ideally, continuous undisturbed sampling or core drilling will provide the most reliable assessment, but this is not always practicable or possible to justify on economic grounds. In any case the boreholes and test pits represent only a very small sample of the total subsurface profile.

Interpretation of the information and its application to design and construction should therefore take into account the spacing of boreholes or pits, the frequency of sampling, and the possibility of other than 'straight line' variations between the test locations.

Groundwater

Where groundwater levels are measured in boreholes there are several potential problems, namely:

- In low permeability soils groundwater may enter the hole very slowly or perhaps not at all during the time the hole is left open;
- A localised, perched water table may lead to an erroneous indication of the true water table;
- Water table levels will vary from time to time with seasons or recent weather

changes. They may not be the same at the time of construction as are indicated in the report; and

- The use of water or mud as a drilling fluid will mask any groundwater inflow. Water has to be blown out of the hole and drilling mud must first be washed out of the hole if water measurements are to be made.

More reliable measurements can be made by installing standpipes which are read at intervals over several days, or perhaps weeks for low permeability soils. Piezometers, sealed in a particular stratum, may be advisable in low permeability soils or where there may be interference from a perched water table.

Reports

The report has been prepared by qualified personnel, is based on the information obtained from field and laboratory testing, and has been undertaken to current engineering standards of interpretation and analysis. Where the report has been prepared for a specific design proposal, the information and interpretation may not be relevant if the design proposal is changed. If this happens, Douglas will be pleased to review the report and the sufficiency of the investigation work.

Every care is taken with the report as it relates to interpretation of subsurface conditions, discussion of geotechnical and environmental aspects, and recommendations or suggestions for design and construction. However, Douglas cannot always anticipate or assume responsibility for:

- Unexpected variations in ground conditions. The potential for this will depend partly on borehole or pit spacing and sampling frequency;
- Changes in policy or interpretations of policy by statutory authorities; or
- The actions of contractors responding to commercial pressures.

If these occur, Douglas will be pleased to assist with investigations or advice to resolve the matter.

About this Report

Site Anomalies

In the event that conditions encountered on site during construction appear to vary from those which were expected from the information contained in the report, Douglas requests that it be immediately notified. Most problems are much more readily resolved when conditions are exposed rather than at some later stage, well after the event.

Information for Contractual Purposes

Where information obtained from this report is provided for tendering purposes, it is recommended that all information, including the written report and discussion, be made available. In circumstances where the discussion or comments section is not relevant to the contractual situation, it may be appropriate to prepare a specially edited document. Douglas would be pleased to assist in this regard and/or to make additional report copies available for contract purposes at a nominal charge.

Site Inspection

The company will always be pleased to provide engineering inspection services for geotechnical and environmental aspects of work to which this report is related. This could range from a site visit to confirm that conditions exposed are as expected, to full time engineering presence on site.

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Appendix B

Tables B.1 and B.2

Table B.1 - Site Features

Key Feature Reference	Source	Description	Visible in 2020 Aerial Photographs?	Requires Inspection?	ENV MRP	DP Observations (from walkover)	PAEC?	PAEC Category / Number	Risk Management Rating	Risk Management Actions
62	1956 aerial	Fields - possible agricultural area	No				Yes	1-7	Low	Low density targeted investigation
263	1956 aerial	Structures (farm/residence)	Yes	x	129	Residential dwellings and associated structures	Yes	4-71	Low - Medium	Targeted intrusive investigation for possible filling
264a	1961 aerial	Possible plant nursery/market garden activities			None	Overgrown with grass cover, however, possibility of historical use of pesticides	Yes	1-20	Low - Medium	Targeted investigation of immediate surrounding surface soils
264b	1961 aerial	Dams	Yes		139a	Elevated areas indicating possible filling associated with dam walls.	Yes	2-114	Low - Medium	Targeted investigation (wall / sediments)
265	1975 aerial	Dam	Yes	x	140	Elevated areas indicating possible filling associated with dam wall.	Yes	2-115	Low	Targeted investigation (wall / sediments)
266	1975 aerial	Dam	Yes	x	None		Yes	2-116	Low	Targeted investigation (wall / sediments)
267	1975 aerial	Dam	Yes	x	121	Possible area of fill with sandstone boulder visible	Yes	2-117	Low	Targeted investigation (wall / sediments)
268	1975 aerial	Dam	Yes	x	None		Yes	2-118	Low	Targeted investigation (wall / sediments)
269	1975 aerial	Dam	Yes	x	None		Yes	2-119	Low	Targeted investigation (wall / sediments)
271	1975 aerial	Ground disturbance	Yes	x	141	Chopped tree trunks lain on grass (organic)	No	-	Low	-
271	1975 aerial	Dam and Creek	Yes	x	142	Trace metal sheeting identified In two areas within gully/creek and dam, and possible filling associated with dam wall.	Yes	3-33	Low	Targeted intrusive investigation for possible filling
272	1990 aerial	Dam	Yes	x	None		Yes	2-121	Low	Targeted investigation (wall / sediments)
273a	1994 aerial	Dam	Yes	x	143	Possible filling associated with dam wall	Yes	2-122	Low	Targeted investigation (wall / sediments)
273b	1994 aerial	Possible refuse material/ground disturbance	Yes	x	146	Area overgrown with grass cover in western portion of Lot 3, DP804375, and on site metal shed observed in the eastern portion	Yes	3-34	Low - Medium	Targeted intrusive investigation for possible filling and investigation of building footpring post-demolition and building footprint investigation
274	2005 aerial	Dam	Yes	x	None		Yes	2-123	Low	Targeted investigation (wall / sediments)
275	2020 aerial	Ground disturbance and refuse materials associated with the on-site residence	Yes	x	None	On site residence with shed structures and varying ground disturbances	Yes	3-35	Low - Medium	Targeted intrusive investigation for possible filling and investigation of building footpring post-demolition and building footprint investigation
276	2020 aerial	Unknown material	Yes	x	126	Horse jump materials with caravan trailers in vicinity, and possible fill creating a ramp to assist with loading	No	3-40	Low	-
277	2020 aerial	Areas of ground disturbance, horse shelters and horse pens	Yes	x	130	Horse shelters and pens with metal sheeting on unsealed ground	Yes	3-36	Low	Targeted intrusive investigation for possible filling

Table B.1 - Site Features

Key Feature Reference	Source	Description	Visible in 2020 Aerial Photographs?	Requires Inspection?	ENV MRP	DP Observations (from walkover)	PAEC?	PAEC Category / Number	Risk Management Rating	Risk Management Actions
278	2020 aerial	Ground disturbance	Yes	x	None	Overgrown with grass cover	Yes	3-37	Low - Medium	Targeted intrusive investigation for possible filling
279	2020 aerial	Old storage tank	Yes	x	132	Old above-ground storage tank repurposed to store and pump water for farm animals	No	10-6	Low	-
280	2020 aerial	Possible stockpiling/Ground Disturbance	Yes	x	None	Overgrown with grass cover, no stockpiling visible in vicinity	Yes	5-11	Low - Medium	Targeted intrusive investigation for possible filling
281	2020 aerial	Ground disturbance	Yes	x	None	Overgrown with grass cover	Yes	3-38	Low	Targeted intrusive investigation for possible filling
282	2020 aerial	Structures	Yes	x	133	Horse shelters with metal sheeting on unsealed ground	Yes	4-73	Low	Targeted intrusive investigation for possible filling
283	2020 aerial	Ground disturbance and refuse materials associated with the on-site residence	Yes	x	None	On site residence with shed structures, refuse materials and varying ground disturbances	Yes	8-13	Low - Medium	Targeted intrusive investigation for possible filling and investigation of building footpring post-demolition and building footprint investigation
284	2020 aerial	Ground disturbance and possible fill	Yes	x	None	Chopped tree trunks lain on grass (organic), trace geotextile fabric and metal scrap.	Yes	3-39	Low - Medium	Targeted intrusive investigation for possible filling
	Site walkover				121	Sandstone boulders were present within dam embankment; possible fill material	Yes	2-112	Low	Targeted intrusive investigation for possible filling
	Site walkover				122	Two stockpiles of quarried materials	No	5-12	Low	Visual observation of material appeared natural and clean
	Site walkover				123	Stockpile of crushed gravel and cobble material.	Yes	5-13	Low - Medium	Targeted intrusive investigation for possible filling
	Site walkover				124	Old, corroded fuel/petrol pump	Yes	10-7	Low - Medium	Targeted intrusive investigation for possible filling
	Site walkover				125	Scrap metal	No	8-14	Low	Targeted intrusive investigation for possible filling
	Site walkover				127	Unsealed road adjoining Macquariedale Road comprised gravelly fill material	Yes	3-41	Low - Medium	Targeted intrusive investigation for possible filling
	Site walkover				128	Unsealed road adjoining Macquariedale Road comprised crushed rock fill material	Yes	3-42	Low - Medium	Targeted intrusive investigation for possible filling
	Site walkover				131	Former fuel storage tank reutilised for water pumping and storage for farm animals	Yes	10-5	Low	Targeted intrusive investigation for contamination
	Site walkover				134	Areas of potential fill gullies	Yes	3-43	Low - Medium	Targeted intrusive investigation for possible filling
	Site walkover				135	Berm observed	Yes	3-44	Low	Targeted intrusive investigation for possible filling
	Site walkover				136	Area of 'cut and fill'	Yes	3-45	Low	Targeted intrusive investigation for possible filling
	Site walkover				137	Timber Power Poles	Yes	9-11	Medium	Targeted investigation of immediate surrounding surface soils
	Site walkover				138	Crushed rock fill material exposed on surface	Yes	3-46	Low	Targeted intrusive investigation for possible filling

Table B.1 - Site Features

Key Feature Reference	Source	Description	Visible in 2020 Aerial Photographs?	Requires Inspection?	ENV MRP	DP Observations (from walkover)	PAEC?	PAEC Category / Number	Risk Management Rating	Risk Management Actions
	Site walkover				144	Possible fill gully/drainage area, trace refuse material (glass bottle)	Yes	3-47	Low - Medium	Targeted intrusive investigation for possible filling
	Site walkover				145	Small dam, overgrown with reeds, possible filling in dam wall	Yes	2-124	Low - Medium	Targeted investigation (wall / sediments)
	Site walkover				146	Dilapidated shed constructed of metal corrugated sheeting on an unsealed soil base with refuse material (metal, timber, plastic) and building demolition waste (brick) inside and in the vicinity	Yes	4-72	Medium	Targeted intrusive investigation for possible filling
	Site walkover				147	Exposed gravelly fill material	Yes	3-49	Low	Targeted intrusive investigation for possible filling
	Site walkover				148	Exposed gravelly fill material adjoining unsealed driveway comprising of same material.	Yes	3-50	Low	Targeted intrusive investigation for possible filling
	Site walkover				149	Small dam, possible filling in dam wall	Yes	2-125	Low - Medium	Targeted investigation (wall / sediments)
	Site walkover				150	Old, empty, corroded oil drum	Yes	8-15	Low	Targeted intrusive investigation for possible filling
	Site walkover				151	Area of ground disturbance	Yes	3-48	Low	Targeted intrusive investigation for possible filling
	Site walkover				152	Area of fly-tipping/dumped refuse material including timber, geotextile fabric, metal scraps, plastic and building demolition waste including concrete and bricks	Yes	8-16	Medium	Targeted intrusive investigation for possible filling

Table B.2. PAEC Categories

Key Feature Reference	Source	Description	Visible in 2020 Aerial Photographs?	Requires Inspection?	ENV MRP	DP Observations (from walkover)	PAEC?	PAEC Category / Number	Risk Management Rating	Risk Management Actions
PAEC 1										
62	1956 aerial	Fields - possible agricultural area	No				Yes	1-7	Low	Low density targeted investigation
264a	1961 aerial	Possible plant nursery/market garden activities			None	Overgrown with grass cover, however, possibility of historical use of pesticides	Yes	1-20	Low - Medium	Targeted investigation of immediate surrounding surface soils
PAEC 2										
264b	1961 aerial	Dams	Yes		139a	Elevated areas indicating possible filling associated with dam walls.	Yes	2-114	Low - Medium	Targeted investigation (wall / sediments)
265	1975 aerial	Dam	Yes	x	140	Elevated areas indicating possible filling associated with dam wall.	Yes	2-115	Low	Targeted investigation (wall / sediments)
266	1975 aerial	Dam	Yes	x	None		Yes	2-116	Low	Targeted investigation (wall / sediments)
267	1975 aerial	Dam	Yes	x	121	Possible area of fill with sandstone boulder visible	Yes	2-117	Low	Targeted investigation (wall / sediments)
268	1975 aerial	Dam	Yes	x	None		Yes	2-118	Low	Targeted investigation (wall / sediments)
269	1975 aerial	Dam	Yes	x	None		Yes	2-119	Low	Targeted investigation (wall / sediments)
271	1975 aerial	Dam and Creek	Yes	x	142	Trace metal sheeting identified In two areas within gully/creek and dam, and possible filling associated with dam wall.	Yes	3-33	Low	Targeted intrusive investigation for possible filling
272	1990 aerial	Dam	Yes	x	None		Yes	2-121	Low	Targeted investigation (wall / sediments)
273a	1994 aerial	Dam	Yes	x	143	Possible filling associated with dam wall	Yes	2-122	Low	Targeted investigation (wall / sediments)
274	2005 aerial	Dam	Yes	x	None		Yes	2-123	Low	Targeted investigation (wall / sediments)
	Site walkover				145	Small dam, overgrown with reeds, possible filling in dam wall	Yes	2-124	Low - Medium	Targeted investigation (wall / sediments)
	Site walkover				149	Small dam, possible filling in dam wall	Yes	2-125	Low - Medium	Targeted investigation (wall / sediments)
PAEC 3										
271	1975 aerial	Ground disturbance	Yes	x	141	Chopped tree trunks lain on grass (organic)	No	-	Low	-
273b	1994 aerial	Possible refuse material/ground disturbance	Yes	x	146	Area overgrown with grass cover in western portion of Lot 3, DP804375, and on site metal shed observed in the eastern portion	Yes	3-34	Low - Medium	Targeted intrusive investigation for possible filling and investigation of building footpring post-demolition and building footprint investigation

Table B.2. PAEC Categories

Key Feature Reference	Source	Description	Visible in 2020 Aerial Photographs?	Requires Inspection?	ENV MRP	DP Observations (from walkover)	PAEC?	PAEC Category / Number	Risk Management Rating	Risk Management Actions
277	2020 aerial	Areas of ground disturbance, horse shelters and horse pens	Yes	x	130	Horse shelters and pens with metal sheeting on unsealed ground	Yes	3-36	Low	Targeted intrusive investigation for possible filling
278	2020 aerial	Ground disturbance	Yes	x	None	Overgrown with grass cover	Yes	3-37	Low - Medium	Targeted intrusive investigation for possible filling
280	2020 aerial	Possible stockpiling/Ground Disturbance	Yes	x	None	Overgrown with grass cover, no stockpiling visible in vicinity	Yes	5-11	Low - Medium	Targeted intrusive investigation for possible filling
281	2020 aerial	Ground disturbance	Yes	x	None	Overgrown with grass cover	Yes	3-38	Low	Targeted intrusive investigation for possible filling
283	2020 aerial	Ground disturbance and refuse materials associated with the on-site residence	Yes	x	None	On site residence with shed structures, refuse materials and varying ground disturbances	Yes	8-13	Low - Medium	Targeted intrusive investigation for possible filling and investigation of building footpring post-demolition and building footprint investigation
284	2020 aerial	Ground disturbance and possible fill	Yes	x	None	Chopped tree trunks lain on grass (organic), trace geotextile fabric and metal scrap.	Yes	3-39	Low - Medium	Targeted intrusive investigation for possible filling
276	2020 aerial	Unknown material	Yes	x	126	Horse jump materials with caravan trailers in vicinity, and possible fill creating a ramp to assist with loading	No	3-40	Low	-
	Site walkover				135	Berm observed	Yes	3-44	Low	Targeted intrusive investigation for possible filling
	Site walkover				136	Area of 'cut and fill'	Yes	3-45	Low	Targeted intrusive investigation for possible filling
	Site walkover				121	Sandstone boulders were present within dam embankment; possible fill material	Yes	2-112	Low	Targeted intrusive investigation for possible filling
	Site walkover				127	Unsealed road adjoining Macquariedale Road comprised gravelly fill material	Yes	3-41	Low - Medium	Targeted intrusive investigation for possible filling
	Site walkover				128	Unsealed road adjoining Macquariedale Road comprised crushed rock fill material	Yes	3-42	Low - Medium	Targeted intrusive investigation for possible filling
	Site walkover				134	Areas of potential fill gullies	Yes	3-43	Low - Medium	Targeted intrusive investigation for possible filling
	Site walkover				138	Crushed rock fill material exposed on surface	Yes	3-46	Low	Targeted intrusive investigation for possible filling

Table B.2. PAEC Categories

Key Feature Reference	Source	Description	Visible in 2020 Aerial Photographs?	Requires Inspection?	ENV MRP	DP Observations (from walkover)	PAEC?	PAEC Category / Number	Risk Management Rating	Risk Management Actions
	Site walkover				144	Possible fill gully/drainage area, trace refuse material (glass bottle)	Yes	3-47	Low - Medium	Targeted intrusive investigation for possible filling
	Site walkover				147	Exposed gravelly fill material	Yes	3-49	Low	Targeted intrusive investigation for possible filling
	Site walkover				148	Exposed gravelly fill material adjoining unsealed driveway comprising of same material.	Yes	3-50	Low	Targeted intrusive investigation for possible filling
	Site walkover				151	Area of ground disturbance	Yes	3-48	Low	Targeted intrusive investigation for possible filling
PAEC4										
263	1956 aerial	Structures (farm / residence)	Yes	x	129	Residential dwellings and associated structures	Yes	4-71	Low - Medium	Targeted intrusive investigation for possible filling
270	1975 aerial	Dam	Yes	x	None		Yes	2-120	Low	Targeted investigation (wall / sediments)
	Site walkover				146	Dilapidated shed constructed of metal corrugated sheeting on an unsealed soil base with refuse material (metal, timber, plastic) and building demolition waste (brick) inside and in the vicinity	Yes	4-72	Medium	Targeted intrusive investigation for possible filling
PAEC5										
	Site walkover				122	Two stockpiles of quarried materials	No	5-12	Low	Visual observation of material appeared natural and clean
	Site walkover				123	Stockpile of crushed gravel and cobble material.	Yes	5-13	Low - Medium	Targeted intrusive investigation for possible filling
PAEC8										
275	2020 aerial	Ground disturbance and refuse materials associated with the on-site residence	Yes	x	None	On site residence with shed structures and varying ground disturbances	Yes	3-35	Low - Medium	Targeted intrusive investigation for possible filling and investigation of building footpring post-demolition and building footprint investigation
	Site walkover				125	Scrap metal	No	8-14	Low	Targeted intrusive investigation for possible filling
	Site walkover				152	Area of fly-tipping/dumped refuse material including timber, geotextile fabric, metal scraps, plastic and building demolition waste including concrete and bricks	Yes	8-16	Medium	Targeted intrusive investigation for possible filling
PAEC 9										

Table B.2. PAEC Categories

Key Feature Reference	Source	Description	Visible in 2020 Aerial Photographs?	Requires Inspection?	ENV MRP	DP Observations (from walkover)	PAEC?	PAEC Category / Number	Risk Management Rating	Risk Management Actions
	Site walkover				137	Timber Power Poles	Yes	9-11	Medium	Targeted investigation of immediate surrounding surface soils
PAEC 10										
279	2020 aerial	Old storage tank	Yes	x	132	Old above-ground storage tank repurposed to store and pump water for farm animals	No	10-6	Low	-
	Site walkover				124	Old, corroded fuel/petrol pump	Yes	10-7	Low - Medium	Targeted intrusive investigation for possible filling
	Site walkover				131	Former fuel storage tank reutilised for water pumping and storage for farm animals	Yes	10-5	Low	Targeted intrusive investigation for contamination
	Site walkover				150	Old, empty, corroded oil drum	Yes	8-15	Low	Targeted intrusive investigation for possible filling

Appendix C

Government Database Search Results

Search results

Your search for: Suburb: APPIN

did not find any records in our database.

If a site does not appear on the record it may still be affected by contamination. For example:

- Contamination may be present but the site has not been regulated by the EPA under the Contaminated Land Management Act 1997 or the Environmentally Hazardous Chemicals Act 1985.
- The EPA may be regulating contamination at the site through a licence or notice under the Protection of the Environment Operations Act 1997 (POEO Act).
- Contamination at the site may be being managed under the [planning process](#).

More information about particular sites may be available from:

- The [POEO public register](#)
- The appropriate planning authority: for example, on a planning certificate issued by the local council under [section 149 of the Environmental Planning and Assessment Act](#).

See [What's in the record and What's not in the record](#).

If you want to know whether a specific site has been the subject of notices issued by the EPA under the CLM Act, we suggest that you search by Local Government Area only and carefully review the sites that are listed.

This public record provides information about sites regulated by the EPA under the Contaminated Land Management Act 1997, including sites currently and previously regulated under the Environmentally Hazardous Chemicals Act 1985. Your inquiry using the above search criteria has not matched any record of current or former regulation. You should consider searching again using different criteria. The fact that a site does not appear on the record does not necessarily mean that it is not affected by contamination. The site may have been notified to the EPA but not yet assessed, or contamination may be present but the site is not yet being regulated by the EPA. Further information about particular sites may be available from the appropriate planning authority, for example, on a planning certificate issued by the local council under section 149 of the Environmental Planning and Assessment Act. In addition the EPA may be regulating contamination at the site through a licence under the Protection of the Environment Operations Act 1997. You may wish to search the POEO public register. [POEO public register](#)

[Search Again](#)[Refine Search](#)

Search TIP

To search for a specific site, search by LGA (local government area) and carefully review all sites listed.

... [more search tips](#)

Public registers

– POEO Public Register

Licences, applications and
notices search

Penalty notices search

Enforceable undertakings
search

Enforceable undertakings
media releases

Exemptions and approvals
search

Prosecutions or civil
proceedings search

Terms of use: POEO public
register

Licensing FAQs

List of licences

Unlicensed premises regulated
by the EPA

+ Contaminated land record of
notices

Dangerous goods licences

Pesticide licences

Radiation licences

[Home](#) [Public registers](#) [POEO Public Register](#) Enforceable undertakings search

Enforceable undertakings

Notice number:

Issued to:

Suburb:

LGA:

Catchment:

[Search](#)

[Clear](#)

returned 0 results

Enforceable undertaking - the administrative power of the EPA to accept a written undertaking by a company or individual in relation to an actual or potential breach of the POEO Act, which is enforceable in the Land and Environment Court.

For more information, see the [enforceable undertakings guidelines](#).

You can also [view the media releases for all enforceable undertakings](#).

8 October 2024

Number	Name	Location	Type	Status	Issued date	On / Off Site
126	Baines Masonary Blocks Pty Ltd	900 WILTON ROAD, APPIN, NSW 2560	POEO licence	Issued	11-Oct-99	Off-site
1503384	Baines Masonary Blocks Pty Ltd	900 WILTON ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	23-Jan-12	Off-site
1574041	Baines Masonary Blocks Pty Ltd	900 WILTON ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	21-Dec-18	Off-site
1636145	Baines Masonary Blocks Pty Ltd	900 WILTON ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	20-Mar-24	Off-site
4705	Baines Transport Pty Ltd	900 WILTON ROAD, APPIN, NSW 2560	POEO licence	No longer in force	09-May-00	Off-site
1007942	Bluescope Steel (AIS) Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	28-Aug-01	Off-site
1008874	Bluescope Steel (AIS) Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	09-Jan-02	Off-site
1015370	Bluescope Steel (AIS) Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	27-Feb-02	Off-site
1018271	Bluescope Steel (AIS) Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	24-Jun-02	Off-site
11734	Cleanaway Organics Pty Ltd	APPIN ROAD, APPIN, NSW 2560	POEO licence	Surrendered	26-Sep-02	Off-site
1043826	Cleanaway Organics Pty Ltd	APPIN ROAD, APPIN, NSW 2560	s.80 Surrender of a Licence	Issued	19-Jan-05	Off-site
12231	Cleanaway Organics Pty Ltd	515 Appin Road, APPIN, NSW 2560	POEO licence	Surrendered	12-Aug-05	Off-site
1062261	Cleanaway Organics Pty Ltd	515 Appin Road, APPIN, NSW 2560	s.58 Licence Variation	Issued	30-Jun-06	Off-site
1064940	Cleanaway Organics Pty Ltd	515 Appin Road, APPIN, NSW 2560	s.58 Licence Variation	Issued	20-Sep-06	Off-site
12547	Cleanaway Organics Pty Ltd	415-417 Appin Road, APPIN, NSW 2560	POEO licence	Surrendered	20-Sep-06	Off-site
1100152	Cleanaway Organics Pty Ltd	515 Appin Road, APPIN, NSW 2560	s.58 Licence Variation	Issued	14-Jun-09	Off-site
1119050	Cleanaway Organics Pty Ltd	515 Appin Road, APPIN, NSW 2560	s.58 Licence Variation	Issued	01-Nov-10	Off-site
1122714	Cleanaway Organics Pty Ltd	415-417 Appin Road, APPIN, NSW 2560	s.80 Surrender of a Licence	Issued	03-May-11	Off-site
1519917	Cleanaway Organics Pty Ltd	515 Appin Road, APPIN, NSW 2560	s.80 Surrender of a Licence	Issued	23-Jun-14	Off-site
1524966	Cleanaway Organics Pty Ltd	515 Appin Road, APPIN, NSW 2560	Condition	Issued	12-Sep-14	Off-site
3.17E+09	Cleanaway Organics Pty Ltd	515 Appin Road, APPIN, NSW 2560	Penalty Notice	Issued	03-Aug-17	Off-site
3.17E+09	Cleanaway Organics Pty Ltd	515 Appin Road, APPIN, NSW 2560	Penalty Notice	Issued	03-Aug-17	Off-site
1016371	CSR Limited	NORTHHAMPTON DALE ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	09-Aug-02	Off-site
5482	EDL CSM (NSW) Pty Ltd	NORTHHAMPTON DALE ROAD, APPIN, NSW 2560	POEO licence	Issued	30-Nov-00	Appin Power Station - Off-site
1046327	EDL CSM (NSW) Pty Ltd	NORTHHAMPTON DALE ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	21-Nov-05	Appin Power Station - Off-site
1055196	EDL CSM (NSW) Pty Ltd	NORTHHAMPTON DALE ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	11-Jan-06	Appin Power Station - Off-site
1061556	EDL CSM (NSW) Pty Ltd	NORTHHAMPTON DALE ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	02-Apr-07	Appin Power Station - Off-site
1081784	EDL CSM (NSW) Pty Ltd	NORTHHAMPTON DALE ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	08-Jan-08	Appin Power Station - Off-site
1097957	EDL CSM (NSW) Pty Ltd	NORTHHAMPTON DALE ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	19-Feb-09	Appin Power Station - Off-site
1109651	EDL CSM (NSW) Pty Ltd	NORTHHAMPTON DALE ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	12-Apr-10	Appin Power Station - Off-site
1503243	EDL CSM (NSW) Pty Ltd	NORTHHAMPTON DALE ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	08-Dec-11	Appin Power Station - Off-site
1516553	EDL CSM (NSW) Pty Ltd	NORTHHAMPTON DALE ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	03-Sep-13	Appin Power Station - Off-site
1586962	EDL CSM (NSW) Pty Ltd	NORTHHAMPTON DALE ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	13-Nov-19	Appin Power Station - Off-site
1603496	EDL CSM (NSW) Pty Ltd	NORTHHAMPTON DALE ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	21-Dec-20	Appin Power Station - Off-site
758	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	POEO licence	Surrendered	10-May-00	Off-site
2504	Endeavour Coal Pty Ltd	WEDDERBURN ROAD, APPIN, NSW 2560	POEO licence	Issued	14-Feb-01	Off-site
1021372	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	04-Oct-02	Off-site
1022452	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	06-Feb-03	Off-site
1025524	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	10-Jul-03	Off-site
1025465	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	17-Jul-03	Off-site
1029681	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	15-Sep-03	Off-site
1029826	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	15-Oct-03	Off-site
1031762	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	12-Feb-04	Off-site
1035225	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	09-Mar-04	Off-site
1034664	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	11-May-04	Off-site
1035971	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	11-May-04	Off-site
1037798	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	16-Jun-04	Off-site
1037771	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	18-Jun-04	Off-site
1039637	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	31-Aug-04	Off-site
1040023	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	20-Sep-04	Off-site
1041735	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	25-Oct-04	Off-site
1041777	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	25-Oct-04	Off-site
1043281	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	05-Jan-05	Off-site
1043403	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	17-Feb-05	Off-site
1046029	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	05-Apr-05	Off-site
1045542	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	15-Apr-05	Off-site
1048911	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	30-Jun-05	Off-site
1050624	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	06-Sep-05	Off-site
1059897	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	03-Aug-06	Off-site
1073110	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	30-May-07	Off-site
1074399	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	21-Jun-07	Off-site
1085199	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	01-May-08	Off-site
1080375	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	06-May-08	Off-site
1085626	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	26-Jun-08	Off-site
1095632	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	11-Dec-08	Off-site
1096767	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	13-Jan-09	Off-site
1104125	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	04-Nov-09	Off-site
1104170	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	06-Nov-09	Off-site
1110208	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	24-Dec-09	Off-site
1114258	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	28-Jun-10	Off-site
1116717	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.80 Surrender of a Licence	Issued	01-Jul-10	Off-site
1129625	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	27-Jun-11	Off-site
1501766	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	19-Oct-11	Off-site
1502947	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	19-Dec-11	Off-site
1504090	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	22-Mar-12	Off-site
1508855	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	24-Apr-13	Off-site
1515381	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	25-Feb-14	Off-site

Number	Name	Location	Type	Status	Issued Date	On / Off Site
1525721	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	28-Oct-14	Off-site
1527985	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	11-Feb-15	Off-site
1539390	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	31-Mar-16	Off-site
1542883	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	01-Aug-16	Off-site
1546867	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	21-Dec-16	Off-site
1550770	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	Compliance Audit	Complete	30-Mar-17	Off-site
1554863	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	01-Aug-17	Off-site
1560310	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	22-Dec-17	Off-site
3.17E+09	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	Penalty Notice	Issued	07-Feb-19	Off-site
3.17E+09	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	Penalty Notice	Issued	07-Feb-19	Off-site
1575934	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	02-Sep-19	Off-site
1588267	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	13-Mar-20	Off-site
1604679	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	12-Jan-21	Off-site
1606736	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	20-Mar-21	Off-site
1613982	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	24-Nov-21	Off-site
1638256	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	05-Jun-24	Off-site
1610677	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	06-Aug-21	Off-site
1618184	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	01-May-22	Off-site
1620619	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	29-Jul-22	Off-site
1630681	Endeavour Coal Pty Ltd	OFF APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	31-Jan-24	Off-site
12990	Pty Ltd	Unit 12, 7-10 Technology Drive, APPIN, NSW 2560	POEO licence	Surrendered	30-Oct-08	Off-site
1510708	Pty Ltd	Unit 12, 7-10 Technology Drive, APPIN, NSW 2560	s.80 Surrender of a Licence	Issued	14-Jan-13	Off-site
1555827	GLC Civil Pty Ltd	400 Brooks Point Road, APPIN, NSW 2560	s.91 Clean Up Notice	Revoked	21-Apr-17	On-site - Appin Part 1 Boundary
1555828	GLC Civil Pty Ltd	400 Brooks Point Road, APPIN, NSW 2560	s.110 Revocation of Clean Up Notice	Issued	20-Sep-17	On-site - Appin Part 1 Boundary
1029950	Holcim (Australia) Pty Ltd	NORTHHAMPTON DALE ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	07-Nov-03	Appin Power Station - Off-site
1033162	Holcim (Australia) Pty Ltd	NORTHHAMPTON DALE ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	16-Dec-03	Appin Power Station - Off-site
1040992	Holcim (Australia) Pty Ltd	NORTHHAMPTON DALE ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	31-Jan-05	Appin Power Station - Off-site
1079004	Holcim (Australia) Pty Ltd	NORTHHAMPTON DALE ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	13-Oct-07	Appin Power Station - Off-site
1104884	Holcim (Australia) Pty Ltd	NORTHHAMPTON DALE ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	02-Oct-09	Appin Power Station - Off-site
1502659	Holcim (Australia) Pty Ltd	NORTHHAMPTON DALE ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	25-Jan-12	Appin Power Station - Off-site
3.09E+09	Holcim (Australia) Pty Ltd	NORTHHAMPTON DALE ROAD, APPIN, NSW 2560	Penalty Notice	Issued	20-Mar-13	Appin Power Station - Off-site
1531936	Holcim (Australia) Pty Ltd	NORTHHAMPTON DALE ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	10-Jul-15	Appin Power Station - Off-site
1600220	Holcim (Australia) Pty Ltd	NORTHHAMPTON DALE ROAD, APPIN, NSW 2560	Compliance Audit	Complete	11-Sep-20	Appin Power Station - Off-site
1602392	Holcim (Australia) Pty Ltd	NORTHHAMPTON DALE ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	13-Jan-21	Appin Power Station - Off-site
3504188	Holcim (Australia) Pty Ltd	NORTHHAMPTON DALE ROAD, APPIN, NSW 2560	s.91 Clean Up Notice	Issued	18-Nov-22	Appin Power Station - Off-site
1626398	Holcim (Australia) Pty Ltd	NORTHHAMPTON DALE ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	08-Feb-23	Appin Power Station - Off-site
1628291	Holcim (Australia) Pty Ltd	NORTHHAMPTON DALE ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	17-May-23	Appin Power Station - Off-site
1632305	Holcim (Australia) Pty Ltd	NORTHHAMPTON DALE ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	25-Aug-23	Appin Power Station - Off-site
1639429	Holcim (Australia) Pty Ltd	NORTHHAMPTON DALE ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	18-Jun-24	Appin Power Station - Off-site
11636	Inghams Enterprises Pty Limited	345 APPIN ROAD, APPIN, NSW 2560	POEO licence	Surrendered	03-Apr-03	Off-site
1505653	Inghams Enterprises Pty Limited	345 APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	30-Apr-12	Off-site
1594628	Inghams Enterprises Pty Limited	345 APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	04-Jun-20	Off-site
1599821	Inghams Enterprises Pty Limited	345 APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	14-Oct-20	Off-site
1604742	Inghams Enterprises Pty Limited	345 APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	29-Jan-21	Off-site
1607635	Inghams Enterprises Pty Limited	345 APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	10-May-21	Off-site
1611891	Inghams Enterprises Pty Limited	345 APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	22-Sep-21	Off-site
1614308	Inghams Enterprises Pty Limited	345 APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	13-Dec-21	Off-site
1622574	Inghams Enterprises Pty Limited	345 APPIN ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	19-Sep-22	Off-site
1633075	Inghams Enterprises Pty Limited	345 APPIN ROAD, APPIN, NSW 2560	s.80 Surrender of a Licence	Issued	26-Oct-23	Off-site
21180	Joe Taylor Sand Pty Ltd	APPIN RD, APPIN, NSW 2560	POEO licence	Issued	13-Dec-18	Off-site
1579902	Joe Taylor Sand Pty Ltd	APPIN RD, APPIN, NSW 2560	s.58 Licence Variation	Issued	14-Aug-19	Off-site
1587168	Joe Taylor Sand Pty Ltd	APPIN RD, APPIN, NSW 2560	s.58 Licence Variation	Issued	06-Nov-19	Off-site
1604011	Joe Taylor Sand Pty Ltd	APPIN RD, APPIN, NSW 2560	s.58 Licence Variation	Issued	15-Dec-20	Off-site
1604818	Joe Taylor Sand Pty Ltd	APPIN RD, APPIN, NSW 2560	s.58 Licence Variation	Issued	20-Jan-21	Off-site
13348	Sydney Water Corporation	Streets identified within Scheme Envelope as per Fig 1-3 of Appin/245, APPIN, NSW 2560	POEO licence	Surrendered	19-Jan-11	Not mappable
1510152	Sydney Water Corporation	Streets identified within Scheme Envelope as per Fig 1-3 of Appin/245, APPIN, NSW 2560	s.80 Surrender of a Licence	Issued	26-Feb-13	Not mappable
20327	Sydney Water Corporation	275 Appin Road, APPIN, NSW 2560	POEO licence	Surrendered	11-Sep-13	Off-site
1525991	Sydney Water Corporation	275 Appin Road, APPIN, NSW 2560	s.80 Surrender of a Licence	Issued	03-Nov-14	Off-site
2387	The Scout Association of Australia	BADEN POWELL DRIVE, APPIN, NSW 2560	POEO licence	Surrendered	13-Oct-00	Off-site
1029907	The Scout Association of Australia	BADEN POWELL DRIVE, APPIN, NSW 2560	s.80 Surrender of a Licence	Issued	08-Aug-03	Off-site
1015321	Tower Energy Pty Limited	NORTHHAMPTON DALE ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	13-Aug-02	Appin Power Station - Off-site
1021565	Tower Energy Pty Limited	NORTHHAMPTON DALE ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	16-Oct-02	Appin Power Station - Off-site
1028575	Tower Energy Pty Limited	NORTHHAMPTON DALE ROAD, APPIN, NSW 2560	s.58 Licence Variation	Issued	16-Jul-03	Appin Power Station - Off-site

Appendix D

Photoplates from the Site Walk Over



Photograph 1 - Stockpile of crushed gravel and cobble material (MRP 123).



Photograph 2 - Raised area of possible fill, likely to be utilised as a ramp with caravan trailers and horse jump equipment present in the surrounds (MRP 126).



Photograph 3 - Unsealed road adjoining Macquariedale Road.
comprised gravelly fill material (MRP 127)



Photograph 4 - Unsealed road adjoining Macquariedale Road comprised.
crushed rock fill material (MRP 128)



Photograph 5 - Residential dwellings and associated structures.
(MRP 129)



Photograph 6 - Proposed Appin (Part 2) Precinct 6 - Horse pens and shelters with metal sheeting with unsealed flooring.
(MRP 130)



Photograph 7 - Former fuel storage tank reutilised for water pumping and storage for farm animals (MRP 131).



Photograph 8 - Former fuel storage tank reutilised for water pumping and storage.
for farm animals (MRP132)



Photograph 9 - Sandstone boulders present within dam embankment (MRP 121).



Photograph 10 - Possible fill gully in central portion of Lot 32 DP736923 (MRP 134).



Photograph 11 - Possible fill gully in western portion of Lot 32 DP736923.
(MRP 134)



Photograph 12 - Possible fill gully in northern portion of Lot 32 DP736923.
(MRP 134)



Photograph 13 - Berm in north-western portion of Lot 32 DP736923.
(MRP 135)



Photograph 14 - Area of fill observed in the south-western portion of Lot 32 DP736923.
(MRP 136)



Photograph 15 - Cut area observed in the south-western portion of Lot 32 DP736923 (MRP 136).



Photograph 16 - Timber power poles observed in the central portion of Lot 32 DP736923 (MRP 137).



Photograph 17 - Exposed crushed rock fill material in the eastern portion of Lot 32 DP736923 (MRP 138).



Photograph 18 - Farm dam located in north-eastern portion of Lot 3 DP804375.
(MRP 139a).



Photograph 19 - Farm dam located in south-eastern portion of Lot 3 DP804375.
(MRP 139b).



Photograph 20 - Farm dam located in north-western portion of Lot 3 DP804375.
(MRP 140).



Photograph 21 - Farm dam located in eastern portion of Lot 3 DP804375.
(MRP 143).

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Photograph 22 - Farm dam located in eastern portion of Lot 3 DP804375.
(MRP 145; limited access).



Photo 23 - Farm dam located in eastern portion of Lot 3 DP804375 (MRP 149).

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Photograph 24 - Chopped tree trunks observed in the eastern portion of Lot 3 DP804375 (MRP 141).



Photograph 25 - Chopped tree trunks observed in the southern portion of Lot 3 DP804375 (Key Feature Reference 284).

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Photograph 26 - Trace geotextile fabric and metal scrap observed in the southern portion of Lot 3 DP804375 (Key Feature Reference 284).



Photograph 27 - Gully/creek located in the eastern portion of Lot 3 DP804375, where metal sheeting was found (MRP 142).



Photograph 28 - Gully observed in the northern portion of Lot 3 DP804375, where trace glass was found (MRP 144).



Photograph 29 - Dilapidated shed constructed of metal corrugated sheeting on an unsealed soil base observed in Lot 3, DP804375 (MRP 146).



Photograph 30 - Refuse material (metal, timber, plastic) and building demolition waste (bricks) observed inside of shed (MRP 146).



Photograph 31 - Refuse material (metal, timber, plastic) and building demolition waste (bricks) observed outside of shed (MRP 146).

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Photograph 32 - Refuse material (metal, timber, plastic) and building demolition waste (bricks) observed outside of shed (MRP 146).



Photograph 33 - Exposed gravelly fill material adjoining unsealed driveway.
(MRP 147).

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Photograph 34 - Exposed gravelly fill material (MRP 148).



Photograph 35 - Old oil drum located in the eastern portion of Lot 3 DP804375 (MRP 150).

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Photograph 36 - Ground disturbance observed in the southern portion of Lot 3 DP804375 (MRP 151).



Photograph 37 - Fly-tipping of refuse material and building demolition waste observed in the southern portion of Lot 3 DP804375 (MRP 152).

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Photograph 38 - Fly-tipping of refuse material and building demolition waste observed in the southern portion of Lot 3 DP804375 (MRP 152).