



Douglas Partners

Geotechnics | Environment | Groundwater

Report on
Preliminary Site Investigation (Contamination)

Proposed Transmission Line Realignment
Coree, Stromlo, Belconnen

Prepared for
Riverview Projects (ACT) Pty Ltd for the Ginninderry
Joint Venture

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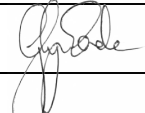
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The undersigned, on behalf of Douglas Partners Pty Ltd, confirm that this document and all attached drawings, logs and test results have been checked and reviewed for errors, omissions and inaccuracies.

	Signature	Date
Author		29 January 2024
Reviewer		30 January 2024

Douglas Partners acknowledges Australia's First Peoples as the Traditional Owners of the Land and Sea on which we operate. We pay our respects to Elders past and present and to all Aboriginal and Torres Strait Islander peoples across the many communities in which we live, visit and work. We recognise and respect their ongoing cultural and spiritual connection to Country.



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Executive Summary

Douglas Partners Pty Ltd (Douglas) has been engaged by Riverview Projects (ACT) Pty Ltd for the Ginninderry Joint Venture to prepare this preliminary site investigation (contamination) (PSI) for a proposed transmission line realignment across seven rural blocks in Coree, Stromlo, Belconnen within the ACT. The transmission line and tower sites layout are shown on Drawings 1 and 2, Appendix A.

The investigation was undertaken in general accordance with Douglas' proposal 225017.00.P.001.Rev0 dated 8 September 2023.

Douglas understands that the Realignment of Transmission Line project consists of rerouting part of the Upper and Lower Tumut 330 kV transmission lines through new transmission towers (30 in total), of which 27 will be located within seven rural blocks across the districts of Coree, Stromlo and Belconnen and three will be located in Uriarra, NSW. It is understood that the PSI report will be used to support the preparation of the Environmental Impact Statement (EIS) for the proposed development.

The PSI only encompasses the proposed transmission line tower areas within the ACT. An investigation of the proposed transmission line area within NSW would require a separate PSI report prepared in reference to NSW EPA guidelines and NSW State guidelines and policies.

The objective of the PSI is to investigate the potential for contamination at the tower sites based on past and present land uses and activities and to comment on the need for further investigation and/or management with regard to the proposed development.

This report must be read in conjunction with all appendices including the notes provided in Appendix B.

The following key guidelines were consulted in the preparation of this report:

- NEPC *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013)* [NEPM] (NEPC, 2013);
- NSW EPA *Guidelines for Consultants Reporting on Contaminated Land* (NSW EPA, 2020); and
- ACT EPA Information Sheet 7: Guidance for undertaking preliminary contamination investigations for development purposes) (ACT EPA, 2022).

The PSI included the following scope of works:

- A desktop study of available topographical, soil, acid sulfate soils, geological and hydrogeological maps and plans;
- A review of registered groundwater bores located within a 1 km radius of the site obtained through the ACT Groundwater Abstraction Bore Register;
- Review of site history information incorporating;
 - o ACT Government records through the ACT Environment Protection Authority's Contaminated Land Register;
 - o Historical title deed information obtained through the ACT Land Information System;
 - o Historical aerial photography archived with the ACT Planning and Land Authority.

- Site walkover of tower locations, access tracks, construction zones and brake and winch areas, where accessible, by a Douglas environmental scientist;
- Preparation of a preliminary conceptual site model (CSM) based on the findings of the site history review and inspection; and
- Preparation of this report presenting the findings of the PSI and identification of potential sources of contamination and receptors and exposure pathways between those sources and receptors.

Based on observations made during the site history information review and site walkover, the main sources of potential areas of environmental contamination (PAEC) are considered to be as follows:

- PAEC1: Fill associated with the observed fill in the historical aerial photograph review, fly-tipping and potential fill from past agricultural land use. Potential contaminants associated with fill include: metals: arsenic (As), cadmium (Cd), chromium (Cr), copper (Cu), lead (Pb), manganese (Mn), mercury (Hg), nickel (Ni), zinc (Zn); total recoverable hydrocarbons (TRH); benzene, toluene, ethylbenzene, xylene (BTEX); polycyclic aromatic hydrocarbons (PAH); organochloride pesticides (OCP); phenols and asbestos;
- PAEC 2: Potential historic off-site presence of PFAS associated with the LMWQCC and legacy firefighting practices with the potential for historic migration on-site. Potential contaminants associated with PFAS use include PFOS, PFOA and PFHxS;
- PAEC 3: Potential impacts from past agricultural land use and present day weed control. Potential contaminants associated with the use of pesticides are: metals: As, Cd, Cr, Cu, Pb, Hg, Ni, Zn; OCP and OPP; and
- PAEC 4: Potential hazardous building materials (HBM) associated with the existing towers, footings and transmission lines. Potential contaminants associated with HBM are lead (in paint), asbestos, PCB and synthetic mineral fibres (SMF).

Areas that may be impacted by potential contamination were identified on the basis of the available desktop site information and a site walkover. Based on the findings of the assessment, the potential for gross chemical contamination to be present within the site is considered to be low.

Based on the assessment findings, Douglas recommends that an intrusive soil investigation is required within Rural Blocks 1614, 1602 and 1461, Belconnen (within proposed tower locations 229A, 230A, 267A and 268A) due to the identified PFAS contamination and identified potential fill. It is noted that the works should be conducted as part of the Development Application (DA) submission (noting that this PSI will form part of an EIS submission). A HAZMAT survey is also recommended prior to the demolition of the existing towers where the tower footings will be exposed and removed. It is noted that the works should be conducted as part of the DA submission. Validation sampling of the soil where footings were located should also be conducted should HBM be identified in the HAZMAT survey and demolition works.

Douglas also recommends that the following measures are conducted at the site during any future development works:

- A Construction Environmental Management Plan (CEMP) should be prepared including an 'unexpected finds protocol' (UFP) (i.e., asbestos in fill/ potential fill associated with agricultural land use, hydrocarbon affected soils including staining and odours and evidence of heavy pesticide use) and implemented during potential future site works;

- Should suspected asbestos containing materials be encountered at the site, the affected area should be fenced off and assessed by a licensed asbestos assessor; and
- Should fill or natural material be required to be disposed or reused off-site, it must first be assessed in accordance with ACT EPA Information Sheet 4, Requirements for the Reuse and Disposal of Contaminated Soil in the ACT.

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Report on Preliminary Site Investigation (Contamination)

Proposed Transmission Line Realignment

Coree, Stromlo, Belconnen

1. Introduction

Douglas Partners Pty Ltd (Douglas) has been engaged by Riverview Projects (ACT) Pty Ltd for the Ginninderry Joint Venture to prepare this preliminary site investigation (contamination) (PSI) undertaken for a proposed transmission line realignment across seven rural blocks in Coree, Stromlo, Belconnen within ACT. The transmission line and tower sites layout are shown on Drawings 1 to 4, Appendix A.

The investigation was conducted in general accordance with Douglas' proposal 225017.00.P.001.Rev0 dated 8 September 2023.

Douglas understands that the Realignment of Transmission Line project consists of rerouting the existing overhead TransGrid transmission lines and rerouting the overhead TransGrid transmission lines through new transmission towers (30 in total), of which 27 will be located within seven rural blocks across the districts of Coree, Stromlo and Belconnen and three will be located in Uriarra, NSW. The proposed new tower sites are either currently located within undeveloped agricultural land or within the existing Stockdill Substation. As part of the planning process, a PSI is required to investigate the potential for contamination to be present at the tower sites and assess the suitability of the corridor for the proposed development. It is understood that the report will be used to support the preparation of the Environmental Impact Statement (EIS) for the proposed development.

It should be noted that this PSI has been written in general accordance to ACT Environmental Protection Authority (EPA) guidelines and adopted/endorsed guidelines. The PSI only encompasses the proposed transmission line tower areas within the ACT. An investigation of the proposed transmission line area within NSW would require a separate PSI report written in reference to NSW EPA guidelines and NSW State guidelines and policies.

The objective of the PSI is to investigate the potential for contamination at the tower sites based on past and present land uses and to comment on the need for further investigation and/or management with regard to the proposed development.

This report must be read in conjunction with all appendices including the notes provided in Appendix B.

The following key guidelines were consulted in the preparation of this report:

- NEPC *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013)* [NEPM] (NEPC, 2013);
- NSW EPA *Guidelines for Consultants Reporting on Contaminated Land* (NSW EPA, 2020); and
- ACT EPA Information Sheet 7: Guidance for undertaking preliminary contamination investigations for development purposes) (ACT EPA, 2022).

2. Proposed Development

Douglas understands that the Upper and Lower Tumut 330 kV Transmission Line Realignment project consists of moving part of two overhead TransGrid transmission lines, numbered 1 and 7, from the Ginninderry development and rerouting them to the recently constructed Stockdill Substation. The new route removes the lines from within the Ginninderry conservation corridor and places them in farmland near the Lower Molonglo Water Quality Control Centre (LMWQCC). It is understood that the proposed new transmission towers will be located within seven rural blocks across the districts of Coree, Stromlo, and Belconnen, within the ACT. It is further understood that the removal of the existing towers and lines will include:

- Removal of the tower and the tower footings in areas of development and non-conservation areas (i.e., areas of residential dwellings, associated infrastructure and open urban space/land for Strathnairn and Macnamara); and
- Removal of the tower and leaving the footings in-situ within conservation areas (i.e., Ginninderry Conservation Corridor and Murrumbidgee River Corridor).

3. Scope of Works

The PSI comprised the following scope of works:

- A desktop study of available topographical, soil, acid sulfate soils, geological and hydrogeological maps and plans;
- A review of registered groundwater bores located within a 1 km radius of the site obtained through the ACT Groundwater Abstraction Bore Register;
- Review of site history information incorporating;
 - o ACT Government records through the ACT Environment Protection Authority's Contaminated Land Register;
 - o Historical title deed information obtained through the ACT Land Information System;
 - o Historical aerial photography archived with the ACT Planning and Land Authority.

It should be noted that historical site searches were conducted for rural blocks where significant development is to occur, namely Rural Block 88, Coree, Rural Block 487, Stromlo and Rural Blocks 1614, 1461, 1602, 1634 and 1635, Belconnen;

- Site walkover (where accessible) of tower locations, access tracks, construction areas (laydown zones) and brake and winch areas by a Douglas environmental scientist;
- Formulation of a preliminary conceptual site model (CSM) based on the findings of the site history review and inspection; and
- Preparation of this report presenting the findings of the PSI and identification of potential sources of contamination and receptors and exposure pathways between those sources and receptors.

4. Site Information

Site Address	Stockdill Drive, Belconnen Uriarra Road, Stromlo Fairlight Road, Coree
Legal Description	Rural Blocks 43 and 88, Coree, Rural Block 487, Stromlo, Proposed Rural Block 488, Stromlo Rural Blocks 1614, 1461, 1602, 1634 and 1635, Belconnen It is noted that the transmission lines will cross other rural blocks and proposed rural blocks (Rural Proposed Block 1578, Belconnen, Rural Block 452, Stromlo, Rural Proposed Block 85, Coree and Rural Block 33, Coree), however it is anticipated that ground will not be disturbed in these areas (tower construction) and no construction areas and brake and winch areas are located within these blocks and are therefore not listed as part of the site.
Approximate Area of Rural Blocks	967 ha
Zoning	Rural Block 88, Coree NUZ4: River Corridor; NUZ2: Rural Rural Block 43, Coree: NUZ2: Rural Rural Block 487, Stromlo NUZ4: River Corridor; NUZ2: Rural Proposed Rural Block 488, Stromlo: NUZ4: River Corridor Rural Blocks 1614 and 1602, Belconnen NUZ4: River Corridor Rural Blocks 1461 and 1635, Belconnen NUZ3: Hills, Ridges and Buffer Areas Rural Block 1634, Belconnen NUZ4: River corridor; NUZ3: Hills, ridges, and buffer areas
Districts	Coree, Stromlo and Belconnen
Current Use	Open agricultural land
Surrounding Uses	North – Lower Molonglo Water Quality Control Centre, Ginninderry Conservation Corridor and open agricultural land East – Open agricultural land South – Open agricultural land West – Open agricultural land

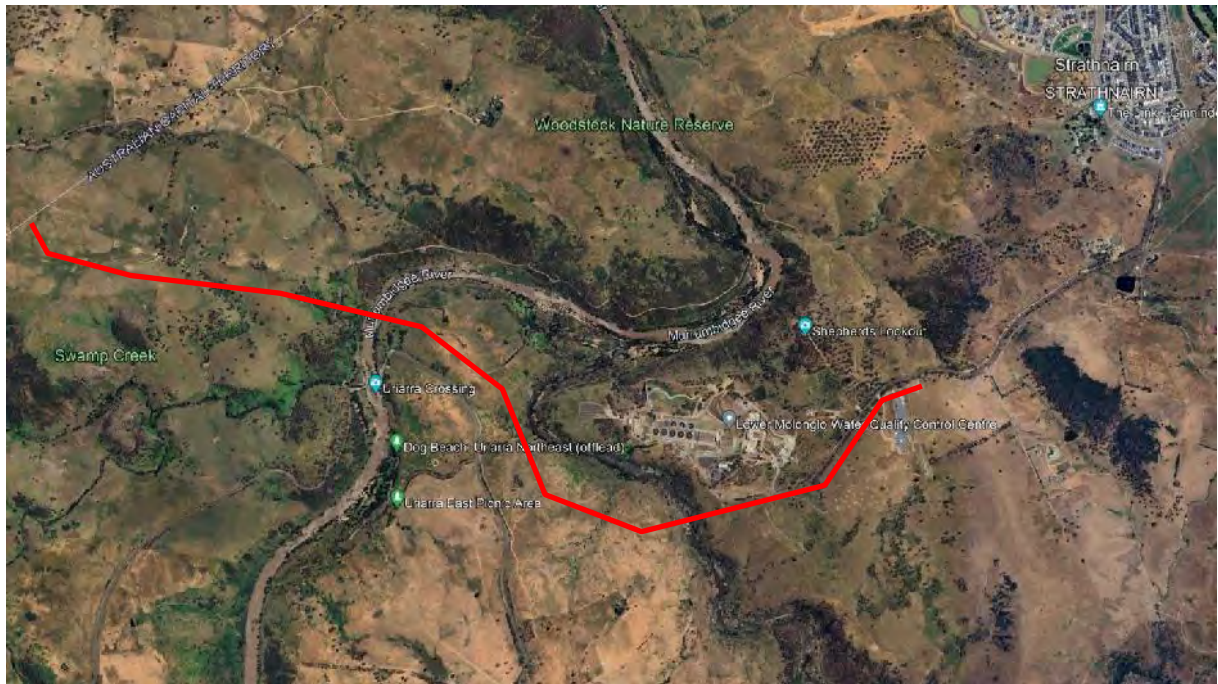


Figure 1: Approximate transmission line relocation area (ACT only). For further details of the new alignment and other areas of construction and development, refer to Drawings 1 to 4 provided in Appendix A.

5. Environmental Setting

5.1 Topography

The regional topography comprises varied landscapes including: undulating rises, rolling low hills, alluvial fans; and rounded and steep to rolling mountains. Slope gradients generally vary between 5 to 32% and in parts of the Murrumbidgee River and Molonglo River valley areas slopes are greater than 20%. The elevation within the region varies between 430 m to 1,090 m elevation Australian Height Datum (AHD).

The site topography is generally undulating with moderate to steep slopes where hills are located and the proposed transmission line area generally slopes down towards the centre of the alignment, towards the Molonglo and Murrumbidgee Rivers. Elevation across the proposed transmission line area ranges between approximately 438 m to 608 m AHD. Higher elevations are observed on hill slopes and the lower elevations are observed along the banks of the Molonglo and Murrumbidgee Rivers.

5.2 Soil Landscape

Reference to the 1:100 000 'Canberra Soil Landscape' Series Sheet 8727 indicates that the site is mapped as being on the Burra Soil Group and Campbell Soil Group. It should be noted that the Lower Molonglo and Lower Molonglo variant b Soil Groups (the banks of the Molonglo River and Murrumbidgee River) are mapped within the proposed transmission line area. However, the proposed transmission

line and towers development with not impact or disturb the Lower Molonglo and Lower Molonglo variant b Soil Groups.

The Burra Soil Group is characterised by undulating to rolling low hills and alluvial fans on Silurian Volcanics. Soils are shallow, well drained Rudosol and Tenosols on crests and upper slopes, moderately deep, moderately well-drained Red Kurosols and Red Kandosols on midslopes and most lower slopes and moderately deep, slowly to moderately well-drained Brown Chromosols and Brown Kandosols along minor drainage lines and on some lower slopes. This soil group is limited by its strongly acid soils with low fertility and low available water holding capacity. Subsoils have low permeability and there is a moderate mass movement hazard and sheet erosion risk.

The Campbell soil group is characterised by steep to rolling rounded hills and mountains on Silurian volcanics and sediments. Soils are shallow well drained Lithosols and Brown Kandosols well-drained to imperfectly drained Red and Brown Chromosols and (Red and Yellow Podzolic Soils) and occasional Red Kandosols (Red Earths) and moderately deep imperfectly to poorly drained Brown Chromosols and Sodosols (Yellow Podzolic) Soils, Solodic and Solonized Solonetz Soils.

5.3 Site Geology

Reference to the 'Geology of Canberra' 1:100 000 Geological Series Sheet 8727 and *Geology of Brindabella* 1:100 000 Geological Series Sheet 8627, the site is underlain by Silurian age Walker Volcanics. The Walker Volcanics typically comprises purple and greenish grey dacitic ignimbrite limestone, calcareous and tuffaceous shale and siltstone.

5.4 Hydrogeology

Reference to the 1:100 000 map 'Hydrogeology of the Australian Capital Territory and Environs' (1984) indicates that the site is underlain by geological units of late Silurian aged. These typically include: dacitic, rhyodacitic, ignimbrite, bedded tuffs, minor shale, sandstone, limestone and ashstone and are typically fractured, high yielding where minor limestone beds, major fold closures, major geologic contacts, individual ash-flows and interbedded sediments appear. Groundwater quality tends to be variable. The likely yield of the groundwater aquifer is indicated to be either be between 0.5 – 1.0 L/s or greater than 1.0 L/s with total dissolved solids either being less than 500 mg/L or between 500 mg/L and 1,000 mg/L.

5.5 Acid Sulfate Soils

The Australian Source Resource Information System (www.asris.csiro.au) indicated that the central portion of the site (Rural Block 487, Stromlo and Rural Block 1614, Belconnen) is located in an area of extremely low probability of occurrence (Cq(p4)) and the eastern and western portions of the site (Rural Blocks 1602, 1461, 1634 and 1635, Belconnen and Rural Block 88, Coree) of the site is located in the area of low probability of occurrence (Bn(p4)) of acid sulfate soils.

5.6 Surface Water and Groundwater

The nearest surface water receptors comprise the Molonglo and Murrumbidgee Rivers (flow within the transmission relocation line) and on-site drainage/gully lines and non-perennial creeks. The Molonglo River flows in a south-east to north-west direction (between Rural Block 487, Stromlo and Rural Block 1614, Belconnen) and eventually flows into the Murrumbidgee River approximately 730 m east of the closest point of the site. The Murrumbidgee River flows in the south to north direction (between Rural Block Stromlo 487 and Rural Block 88, Coree). Surface water run-off from the tower sites will most likely be directed to the drainage lines/gully lines and non-perennial creeks and then will eventually flow into the Molonglo and Murrumbidgee Rivers.

A search of the publicly available registered groundwater bore database indicated that there are no registered groundwater bores located within a 1 km radius of the site.

6. Site History

6.1 Previous Douglas Investigations

Douglas has undertaken one previous PSI with limited sampling within Part Rural Block 1634, Belconnen for the proposed Neoen Territory Battery Energy Storage System in August 2022. The project is listed below:

- Douglas (2022), *Report on Preliminary Site Investigation, Proposed Territory Battery Energy Storage System, Part Rural Block 1634, Belconnen*, Douglas Partners Pty Ltd, report reference 94193.04.R.001.Rev4 (Douglas, 2022);

The objectives of the PSI were to identify potential sources of contamination, undertake limited soil sampling at the site, advise on the potential of contamination and the need, or otherwise, for on-going site investigations and/or remediation and advise on the suitability of the site for its intended use.

A desktop study and site walkover were completed and it was considered that potential sources of contamination comprised potential fill associated with past agricultural use of the site and potential pesticide use associated with livestock grazing.

Following the desktop study, walkover and identification of potential contaminants, 20 test pits were excavated across the development area. The pits were excavated to a target depth of 1 m below ground level, 0.5 m into natural ground or prior refusal. Soil samples were tested for a combination of contaminants associated with fill and pesticide use including: metals: arsenic (As), cadmium (Cd), chromium (Cr), copper (Cu), lead (Pb), manganese (Mn), mercury (Hg), nickel (Ni), zinc (Zn); total recoverable hydrocarbons (TRH); benzene, toluene, ethylbenzene, xylene (BTEX); polycyclic aromatic hydrocarbons (PAH); organochloride pesticides (OCP); phenols and asbestos.

Analytical results of soil samples were all within the adopted health-based (i.e., HIL-D/HSL-D) and management limits for commercial/industrial land use. The analytical results were all within the adopted ecological based limits for commercial/industrial land use.

Douglas considered that the site was suitable for the proposed use as the Territory Battery Energy Storage System and for permitted uses under the current site zoning, from a site contamination perspective, subject to the following measures during any future development works:

- A Construction Environment Management Plan (CEMP) should be prepared prior to construction including an 'unexpected finds protocol' (UFP) (e.g., asbestos in fill, buried waste or hydrocarbon

affected soils including staining and odours and evidence of heavy pesticide use) and implemented during potential future site works.

It is noted that at the time of writing this report, Douglas did not have access or permission to obtaining reports produced by other environmental consultants. Information from other environmental consultants' reports were obtained through ACT EPA searches (see Section 6.4).

6.2 Historical Aerial Photography

Several historical aerial photographs were obtained from public databases. Extracts of the aerial photographs are included in Appendix D. A summary of key features observed for the site and surrounding land is presented in Tables 1 – 3.

Table 1: Summary of Historical Aerial Photographs (Rural Block 88, Coree – Drawings D1 – D9)

Year	Site (Proposed Tower Locations, Access Tracks, Construction Areas and Brake and Winch Areas)	Surrounding Land Use (Areas Outside of Proposed Works Areas)
1960	The proposed tower locations appeared to be undeveloped open land, most likely used for grazing livestock. The surface appeared to be grassed with only sporadic trees present.	The predominant land use of the surrounding area appeared to be livestock grazing. Farm dams were located to the north of the proposed tower locations 223A and 261A, gully lines and creek lines were present between and outside of all proposed tower locations. To the north of proposed Tower 222A, there appeared to vegetation disturbance, either slashed grass (hay production) or an area of cropping. Unsealed access tracks appeared to be present north of proposed tower location 222A and 260A.
1968	Appeared largely unchanged from the previous photograph.	Appeared largely unchanged from the previous photograph.
1975	Appeared largely unchanged from the previous photograph.	Appeared largely unchanged from the previous photograph. It appeared that the existing transmission lines and towers were constructed to the north of the block.
1984	Appeared largely unchanged from the previous photograph.	Appeared largely unchanged from the previous photograph.

Year	Site (Proposed Tower Locations, Access Tracks, Construction Areas and Brake and Winch Areas)	Surrounding Land Use (Areas Outside of Proposed Works Areas)
1997	Appeared largely unchanged from the previous photograph.	Appeared largely unchanged from the previous photograph.
2004	Appeared largely unchanged from the previous photograph.	Appeared largely unchanged from the previous photograph. Further gully erosion between proposed tower locations 221A/259A and 222A/260A appeared to have occurred.
2012	Appeared largely unchanged from the previous photograph.	Appeared largely unchanged from the previous photograph.
2019	Appeared largely unchanged from the previous photograph.	Appeared largely unchanged from the previous photograph.
2023	Appeared largely unchanged from the previous photograph.	Appeared largely unchanged from the previous photograph.

Table 2: Summary of Historical Aerial Photographs (Rural Block 487, Stromlo – Drawings D10 – D18)

Year	Site (Proposed Tower Locations and Access Tracks, Construction Areas and brake and Winch Areas)	Surrounding Land Use (Areas Outside of Proposed Works Areas)
1960	The proposed tower locations appeared to be undeveloped open land, most likely used for grazing livestock. The surface appeared to be grassed with only sporadic trees present.	The predominant land use of the surrounding area appeared to be livestock grazing. A gully line appeared to be present between proposed tower locations 265A/227A and 266A/228A. Unsealed access tracks appeared to be present within the northern portion of the block. There appeared to be a residential structure north of proposed tower location 225A and possible structures along the north-east and north-west boundaries of the block.

Year	Site (Proposed Tower Locations and Access Tracks, Construction Areas and brake and Winch Areas)	Surrounding Land Use (Areas Outside of Proposed Works Areas)
1968	Appeared largely unchanged from the previous photograph.	Appeared largely unchanged from the previous photograph. A farm dam appeared to be constructed in the northern portion of the block.
1975	Appeared largely unchanged from the previous photograph.	Appeared largely unchanged from the previous photograph.
1984	Appeared largely unchanged from the previous photograph.	Appeared largely unchanged from the previous photograph.
1997	Appeared largely unchanged from the previous photograph.	Appeared largely unchanged from the previous photograph.
2004	Appeared largely unchanged from the previous photograph.	The structures noted in the 1960 aerial photograph appeared to have been demolished/removed. One of the northern access tracks appears to have been sealed with asphalt.
2012	Appeared largely unchanged from the previous photograph.	Appeared largely unchanged from the previous photograph.
2019	Appeared largely unchanged from the previous photograph.	Appeared largely unchanged from the previous photograph.
2023	An unsealed access track appeared to have been constructed within the vicinity of proposed tower locations 265A and 227A.	An unsealed access track appeared to be constructed within the south-west corner of the block.

Table 3: Summary of Historical Aerial Photographs (Rural Blocks 1614, 1416, 1602,1634 and 1635, Belconnen – Drawings D19 – D26)

Year	Site (Proposed Tower Locations and Access Tracks, Construction Areas and brake and Winch Areas)	Surrounding Land Use (Areas Outside of Proposed Works Areas)
1960	The proposed tower locations appeared to be undeveloped open land, most likely used for grazing livestock. The surface appeared to be grassed with only sporadic trees present.	The predominant land use of the surrounding area appeared to be livestock grazing. A possible unsealed access track or gully line appears to be located between proposed tower location 268A and 269A.

Year	Site (Proposed Tower Locations and Access Tracks, Construction Areas and brake and Winch Areas)	Surrounding Land Use (Areas Outside of Proposed Works Areas)
1975	An unsealed access track appeared to have been constructed within the vicinity of proposed tower location 229A. Disturbed ground appeared to be present within proposed tower locations 230A and 268A.	The Lower Molonglo Water Quality Control Centre (LWQCC) appeared to be under construction approximately 100 m to the north of the proposed tower location 229A. Disturbed ground was also present approximately 50 m to the south-east of proposed tower location 267A. The disturbed ground appeared to be the result of surplus soil from the LWQCC development. An unsealed access track and disturbed ground appeared to have been constructed between proposed tower locations 229A and 230A/268A.
1984	An unsealed access track appeared to have been constructed through proposed tower locations 232A, 233A, 234A and 270A.	Largely unchanged from the previous photograph. Construction of the LWQCC had been completed.
1997	Appeared largely unchanged from the previous photograph.	Appeared largely unchanged from the previous photograph.
2004	Appeared largely unchanged from the previous photograph.	Appeared largely unchanged from the previous photograph.
2014	Appeared largely unchanged from the previous photograph.	Appeared largely unchanged from the previous photograph.
2019	Appeared largely unchanged from the previous photograph.	Appeared largely unchanged from the previous photograph.
2023	The unsealed access track noted in the 1984 aerial photograph appeared to have been extended towards the southern end of the electricity substation.	An electricity substation had been constructed approximately 20 – 75 m to the south of proposed tower locations 233A, 234A and 270A and approximately 70 m to the east of proposed tower locations 232A and 270A. Small areas of disturbed ground appeared to be present between proposed tower locations 230A/268A and 231A and 269A. The disturbed ground was a result of test pits excavated in a geotechnical

Year	Site (Proposed Tower Locations and Access Tracks, Construction Areas and brake and Winch Areas)	Surrounding Land Use (Areas Outside of Proposed Works Areas)
		investigation conducted by Douglas (report ref: 94193.05.R.002.Rev0, dated 16 March 2023).

6.3 Title Deeds

A historical title deeds search was used to obtain ownership and occupancy information including company names and the occupations of individuals. The title information can assist in the identification of previous land uses by the company names or the site owners and can, therefore, assist in establishing whether there were potentially contaminating activities occurring at the site. It is noted that the rural blocks have undergone several lease applications and have been leased to various occupants. The review of historical title deeds, in conjunction with the historical aerial photographs has indicated that the inferred land use for the rural blocks was likely used for agricultural purposes.

The results of the title deed searches are provided in Appendix C.

6.4 Regulatory Notices Search

A search was conducted through the ACT Environment Protection Authority (EPA) for regulatory notices that exist for the blocks on which the site is located (Rural Block 88, Coree, Rural Block 487, Stromlo, Rural Blocks 1614, 1461, 1602, 1634 and 1635, Belconnen). The email letters from the EPA were dated 16 October 2023 and 21 November 2023. It was noted that the EPA has not issued any orders of assessments or remediations, environmental protection orders, requested audits to be undertaken, or received audit notifications for the rural blocks. The following details were provided for each block.

6.4.1 Rural Block 88, Coree

The block is not recorded on the EPA's contaminated site management database but is present on the geographic information system.

Areas of environmental concern associated with rural activity may exist at the site including fuel storage, waste disposal and chemical storage.

The search also noted that areas of environmental concern which have not been recorded by the EPA and are associated with rural activities may exist within Rural Block 88, Coree. Activities associated on these rural properties can include fuel storage and dispensing facilities, waste disposal sites associated with municipal and chemical waste disposal, acceptance of uncontrolled fill, hazardous materials storage (e.g., pesticides/herbicides, lubricants etc.) and hazardous materials contained in building structures and fittings (e.g., asbestos, PCBs, lead etc.).

6.4.2 Rural Block 487, Stromlo

The block is recorded on the EPA's contaminated sites management database and geographic information system.

The EPA records indicate that there was a historic plunge sheep dip site located on Rural Block 487, Stromlo. The EPA has a 100 m buffer zone from sheep dips within which an investigation is required. The EPA have provided the coordinates for the sheep dip (677876.94246, 6098266.50335), and it is approximately 155 m east and down-gradient of proposed tower location 263A (see Drawing 2, Appendix A, for the approximate sheep spray dip location). The sheep dip has been identified but not investigated with no records to indicate that an environmental assessment has been undertaken to determine the extent of any impacts from the sheep dip activities.

The search also noted that areas of environmental concern which have not been recorded by the EPA and are associated with rural activities may exist within Rural Block 487, Stromlo. Activities associated on these rural properties can include fuel storage and dispensing facilities, waste disposal sites associated with municipal and chemical waste disposal, acceptance of uncontrolled fill, hazardous materials storage (e.g., pesticides/herbicides, lubricants etc.) and hazardous materials contained in building structures and fittings (e.g., asbestos, PCBs, lead etc.).

6.4.3 Rural Blocks 1614 and 1602, Belconnen

The blocks are not recorded on the EPA's contaminated site management database but are present on the geographic information system.

The search also noted that areas of environmental concern which have not been recorded by the EPA and are associated with rural activities may exist within Rural Blocks 1614 and 1602, Belconnen. Activities associated on these rural properties can include fuel storage and dispensing facilities, waste disposal sites associated with municipal and chemical waste disposal, acceptance of uncontrolled fill, hazardous materials storage (e.g., pesticides/herbicides and lubricants etc.) and hazardous materials contained in building structures and fittings (e.g., asbestos, PCBs and lead etc.).

The EPA also notes that the blocks are adjacent to Rural Block 1533, Belconnen, occupied by the LMWQCC. EPA records indicate that Rural Block 1533, Belconnen has hazardous materials stored on-site (previous and current underground fuel tanks) and chemical storage is likely to be present on site. Asbestos contaminated fill material was observed to be present on-site in February 2009. It was found that the material was suitable for on-site retention, subject to a site-specific asbestos management plan. The EPA endorsed the findings of the asbestos management plan in November 2009.

The EPA notes that contamination mapping tools indicate that per-and polyfluoroalkyl substances (PFAS) have been noted to be on-site at Rural Block 1533, Belconnen. The contamination is unquantified and has not been investigated to date and the buffer zone around the contamination extends into the north portion of Rural Block 1614, Belconnen but not Rural Block 1602, Belconnen. It should be noted that the EPA was not able to provide data/figures for the area of the buffer zone.

The EPA noted that Icon Water's annual reporting for the incoming wastewater at the LMWQCC contained PFAS. Icon Water note that when the wastewater is treated, it is separated into solids, nutrients and pathogens. The EPA understands that the PFAS is massed in the solids, which is then incinerated on site into ash, tested and cleared for land applied use in NSW. The tests of incinerated mass either indicate that PFAS is found to be below detection limits or within the allowed limits. The EPA indicates that there is a very low risk for the wastewater/separated solids are the source of the

buffer zone. According to the EPA, the second and most likely source of PFAS within the buffer zone that extends into the northern portion of Rural Block 1614, Belconnen, is the legacy of undocumented firefighting drills that took place on Rural Block 1553, Belconnen approximately in the 1980's to the 1990's. The EPA state that the firefighting foams used had an unknown PFAS impact at the time. Icon Water had previously undertaken preliminary testing once the PFAS contamination was known but have not made the levels public to date. The EPA state that they may have the records but at the time of writing this report, have not been able to locate the records. The EPA state that: *"the level of contamination is said to be low and will eventually dissipate in the ground water that will disperse downstream away from Rural Block 1614, Belconnen"*. The EPA note that there is no guarantee that the northern portion of Rural Block 1614, Belconnen has not been affected by PFAS.

6.4.4 Rural Blocks 1634 and 1635, Belconnen

The blocks are not recorded on the EPA's contaminated site management database but are present on the geographic information system.

The search also noted that areas of environmental concern which have not been recorded by the EPA and are associated with rural activities may exist within Rural Blocks 1634 and 1635, Belconnen. Activities associated on these rural properties can include fuel storage and dispensing facilities, waste disposal sites associated with municipal and chemical waste disposal, acceptance of uncontrolled fill, hazardous materials storage (e.g., pesticides/herbicides, lubricants etc.) and hazardous materials contained in building structures and fittings (e.g., asbestos, PCBs, lead etc.).

As part of the ACT second electrical supply project, the northern portion of the block (now comprising the electricity substation) was assessed in 2018. The EPA reviewed a PSI report (WSP Australia Pty Ltd, 2018) and supported the consultant's finding that the area was suitable for development of a substation and associated transmission line network. A construction environmental management plan (CEMP) was required to be implemented during construction of the electricity substation and the EPA records indicate that the construction was managed in accordance with the CEMP.

6.4.5 Rural Block 1416, Belconnen

The block is not recorded on the EPA's contaminated site management database but is present on the geographic information system.

Areas of environmental concern associated with rural activity may exist at the site including fuel storage, waste disposal and chemical storage.

The search also noted that areas of environmental concern which have not been recorded by the EPA and are associated with rural activities may exist within Rural Block 1416, Belconnen. Activities associated on these rural properties can include fuel storage and dispensing facilities, waste disposal sites associated with municipal and chemical waste disposal, acceptance of uncontrolled fill, hazardous materials storage (e.g., pesticides/herbicides, lubricants etc.) and hazardous materials contained in building structures and fittings (e.g., asbestos, PCBs, lead etc.).

6.5 Historical Building Plans

No buildings are present where the tower locations are proposed to be constructed, nor are likely to have existed on the site based on Aerial Photography review (refer to Section 6.1), therefore a search of historical buildings plans held by the ACT Planning and Land Authority was not conducted or considered to be necessary.

6.6 Review of Site Heating Methods

No buildings are present where the tower locations are proposed to be constructed, nor are likely to have existed on the site based on Aerial Photography review (refer to Section 6.1). Given that that no buildings are present, Douglas considers it unlikely that any form of mechanical site heating systems are present on site.

6.7 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/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 can 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.

6.8 Summary of Site History

Several sources of information have been collated to identify current and former uses of the site, including historical aerial photography and records held by the ACT Government.

The historical aerial photographs indicate that the majority of the proposed transmission tower areas are located, have remained undeveloped open land and it is considered that the site has been used for agricultural (grazing) purposes. However, the 2023 aerial photograph (Drawing D26, Appendix D) indicated that the Stockdill Substation was constructed within Rural Block 1635, Belconnen, sometime between 2019 and 2023. A portion of Rural Blocks 1602 and 1614, Belconnen (south of the proposed tower area 267A and west/within of proposed tower areas 230A and 268A) appeared to have been disturbed in approximately 1975 (refer to Drawing 1, Appendix A and Drawing D20, Appendix D). It appeared that the current day transmission lines and towers (that will be removed/replaced) were developed sometime between 1968 and 1975 (refer to Drawing D3, Appendix D). It is possible that hazardous building materials (HBM) were used for the construction of the tower footings and cable lines (i.e. lead (in paint), asbestos, synthetic mineral fibres and polychlorinated biphenyls).

Review of contaminated land search records (refer to Appendix C) indicated that the EPA have a record for Rural Block, 487, Stromlo, due to the presence of an historic spray sheep dip. However, the sheep dip was indicated to be located approximately 155 m east and down-gradient of proposed tower location

263A and is not considered to be a source of potential contamination. The neighbouring site to the north, LMWQCC (Rural Block 1553, Belconnen), is also listed on the contaminated sites management database. The EPA have listed that the site potentially stores chemicals and fuel, fill contaminated with asbestos has been identified on-site (currently subjected to an asbestos management plan) and PFAS may be present. The EPA note that the PFAS contamination is unquantified and has not been investigated to date, however, a buffer zone around the potential PFAS contamination extends into the north portion of Rural Block 1614, Belconnen and PFAS may be present with this area. It is unlikely that fuel/chemical storage would affect the site due to the majority of buildings located within the LMWQCC being located down gradient of the site.

The remaining blocks were not recorded on the EPA's contaminated site management database but are present on the geographic information system. The EPA notes that areas of environmental concern associated with rural activity may exist within the remaining blocks including fuel storage, waste disposal (including potentially contaminated fill) and chemical storage. It should be noted that the area of the Stockdill Substation was subject to a PSI (WSP Australia Pty Ltd, 2018) and CEMP. The EPA supported the consultant's finding that the area was suitable for development of a substation and associated transmission line network and the EPA.

A request to ACT Building Services to search the building file for the blocks where the proposed towers are located was not made on the basis that review of historical aerial photographs indicated that no buildings were likely to have been developed within areas of the transmission towers. Given that no buildings are likely to have been developed in these areas, it is considered unlikely that mechanical heating systems have been installed at the site.

7. Site Walkover

A site walkover was undertaken by an experienced environmental scientist on 2 and 6 November 2023. The general site topography was consistent with that described in Section 5. The site layout appears to have remained unchanged from the 2023 (captured in January) aerial photograph. The following key site features pertinent to the PSI were observed (refer to photographs in Appendix E).

- The site was open grazing land and was heavily vegetated with grass and sporadic trees and bushes/shrubs were also located across the site;
- Areas of rocky outcrops and surface dacitic and rhyodacitic cobbles were present across most of the site;
- Disturbed ground was noted across the portions of the site with Rural Block 487, Stromlo. Upon closer inspection, the disturbed ground appeared to be the result of several rabbit warrens and wombat burrows. A potential fill mound was observed in the area of proposed tower 230A within Rural Block 1602, Belconnen (refer to Drawing 2, Appendix A and Photograph 21, Appendix E);
- Scattered bricks were observed on the surface within the area of proposed tower 267A within Rural Block 1602, Belconnen (refer to Drawing 2, Appendix A and Photograph 19, Appendix E);
- A large and heavily vegetated stockpile was located within the south-west corner of Rural Block 1635, Belconnen, adjacent to the Stockdill Substation (refer to Drawing 2, Appendix A). The stockpile likely originated from construction of the nearby substation. There was no evidence to suggest that the stockpile had eroded and formed sediments within areas of the proposed transmission towers;

- The Stockdill Substation (located within Rural Block 1635, Belconnen) comprised of:
 - o Bulk earthworks and associated surfacing (levelled platform for the substation footprint and batters);
 - o Retaining walls;
 - o Internal gravel roads, access roads and trafficable bench;
 - o Security fencing;
 - o Construction of 330 kV and 132 kV bays;
 - o Gantries and landing structures; and
 - o Auxiliary services building.
- Proposed tower locations appeared to not be within any immediate areas of any Stockdill Substation structures where chemicals had the potential to be stored. A construction laydown area is proposed to be located in between the stockpile and the substation and on the batter of the substation (Drawing 2, Appendix A). There appeared to be no obvious signs of potential contamination within the laydown area;
- An unsealed access track appeared to be within the area of another construction laydown area (Drawing 1, Appendix A), located within Rural Block 487, Stromlo. The unsealed track appeared to have been constructed from grading of the natural soils on site.
- No areas of staining or odours were observed. There were no signs of stressed vegetation across the site and there was also no evidence of heavy pesticide use observed; and
- No potential asbestos containing material (PACM) was observed within the site.

It should be noted that due to the presence of dense vegetation across the site, observations of potential fill, hazardous building materials and stained soils was limited during the site walkover.

8. Potential for Contamination

Based on observations made during the site history information review and site walkover, the main sources of potential contamination (PAEC) are considered to be as follows:

- PAEC1: Fill associated with the observed fill/disturbed ground in the historical aerial photograph review, fly-tipping (observed within Rural Blocks 1614, 1602 and 1461, Belconnen – Towers 230A, 268A, 229A and 267A) and potential fill from past agricultural land use (potentially all rural blocks). Potential contaminants associated with fill include metals: arsenic (As), cadmium (Cd), chromium (Cr), copper (Cu), lead (Pb), manganese (Mn), mercury (Hg), nickel (Ni), zinc (Zn); total recoverable hydrocarbons (TRH); benzene, toluene, ethylbenzene, xylene (BTEX); polycyclic aromatic hydrocarbons (PAH); organochloride pesticides (OCP); phenols and asbestos;
- PAEC 2: Potential historic off-site presence of PFAS associated with the LMWQCC and legacy firefighting practices with the potential for historic migration on-site (Rural Block 1614, Belconnen – Towers 229A and 267A). Potential contaminants associated with PFAS use include PFOS, PFOA and PFHxS; and

- PAEC 3: Potential impacts from past agricultural land use and present day weed control (potentially all rural blocks). Potential contaminants associated with the use of pesticides are metals: As, Cd, Cr, Cu, Pb, Hg, Ni, Zn; OCP and OPP.
- PAEC 4: Potential hazardous building materials (HBM) associated with the existing towers, footings and transmission lines. Potential contaminants associated with HBM are lead (in paint), asbestos, PCB and synthetic mineral fibres (SMF).

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 how the site may become contaminated and how potential receptors may be exposed to contamination either in the present or the future i.e., it enables an assessment of the potential source – pathway – receptor linkages (complete pathways).

Potential Sources (S)

Based on the current investigation, the following potential sources of contamination and associated contaminants of potential concern (CoPC) have been identified.

- S1 – Fill originating from construction, fly-tipping and potential historical agricultural land use;
- S2 – Potential historic migration on-site of PFAS from adjacent site;
- S3 – Potential historic agricultural pesticide use; and
- S4 – Potential HBM associated with the tower footing construction.

Potential Receptors (R)

The following potential human receptors have been identified:

- R1: Current users [agricultural workers and electricity substation workers];
- R2: Construction and maintenance workers;
- R3: End users [transmission line workers and passing agricultural workers]; and
- R4: Adjacent site users [agricultural workers].

The following potential environmental receptors have been identified:

- R5: Surface water [Molonglo and Murrumbidgee Rivers and on-site tributaries (gully lines and non-perennial creeks) - freshwater];
- R6: Groundwater; and
- R7: Terrestrial ecosystems.

Potential Pathways (P)

The following potential pathways in relation to human receptors have been identified:

- P1: Ingestion and dermal contact;
- P2: Inhalation of dust, fibres and/or vapours;

The following potential pathways in relation to the environmental receptors have been identified:

- 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: Inhalation, ingestion and absorption (including livestock).

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 S4) and receptors (R1 to R4) are provided in below Table 4.

Table 4: Summary of Potentially Complete Exposure Pathways

Source and CoPC	Transport Pathway	Receptor	Risk Management Action
S1: Fill, metals, TRH, BTEX, PAH, PCB, OPP OCP and asbestos	P1 and P2	R1, R2 and R3	Fill was identified as disturbed ground in historical aerial photos (tower locations 229A and 267A – Rural Block 1614; and tower locations 230A and 268A – Rural Blocks 1602 and 1461, Belconnen) and during the site walkover (tower location 230A). Sporadic bricks (potential fly-tipping) were also observed across a small area of the site during the walkover (tower location 267A). Given the presence of fill, an intrusive soil investigation is required within the respective tower locations to assess for possible site contamination. A groundwater investigation is not recommended at this stage based on the historical
	P2	R4	
	P3 and P5	R5	
	P5	R4, R6 and R7 (including livestock)	
	P6	R7 (including livestock)	

Source and CoPC	Transport Pathway	Receptor	Risk Management Action
			assessment. A groundwater investigation may be recommended at a later stage depending on the findings of the soil investigation.
S2: PFAS, PFOS, PFOA and PFHxS	P1, P2 and P3	R1, R2, R3 and R4	The ACT EPA database indicates that PFAS was detected within the soil within the adjacent block to the north of Rural Block 1614, Belconnen (tower locations 229A and 267A are located within this block) and a buffer zone of potential PFAS contamination extends into the northern portion of Rural Block 1614, Belconnen. The EPA informed Douglas that there was no data/information for the exact location of the buffer zone.
	P3, P4, P5	R4	
	P3 and P4	R5	
	P4 and P5	R6	
	P6	R7 (including livestock)	Given the potential presence of PFAS, an intrusive soil investigation is required within the respective tower locations to assess for possible site contamination. A groundwater investigation is not recommended at this stage based on the historical assessment. A groundwater investigation may be recommended at a later stage depending on the findings of the soil investigation.
S3: Pesticide use, heavy metals, OPP and OCP.	P1 and P2	R1, R2 and R3	Several paddocks where the towers are proposed to be located appeared to have

Source and CoPC	Transport Pathway	Receptor	Risk Management Action
	P2	R4	been used for grazing purposes (all rural blocks).
	P3 and P4	R5	It is considered that the risk of accumulation of significant quantities of pesticides in general soil across the site is low (given the low intensity of the agricultural activities).
	P5	R4, R6 and R7 (including livestock)	Douglas recommends that a CEMP should be prepared and implemented during potential future site works including a UFP if pesticide use is suspected on site (i.e., stressed vegetation, observed spraying of vegetation and/or sprayed vegetation).
	P6	R7 (including livestock)	
S4: Potential HBM, lead, asbestos, SMF and PCB	P1 and P2	R1, R2 and R3	Due to the age of the existing towers, it is possible that the footings and cables may be constructed of HBM.
	P2	R4	
	P6	R7 (including livestock)	Douglas recommends that prior to the demolition of the towers and removal of the cables, a hazardous materials (HAZMAT) survey should be conducted on the structures' footings. Should HBM be present, validation sampling of the removed footings envelope should be conducted. A groundwater investigation is not recommended at this stage based on the historical assessment. A groundwater investigation may be recommended at a later stage depending on the

Source and CoPC	Transport Pathway	Receptor	Risk Management Action
			findings of the soil investigation. It is noted that HBM surveys will not need to occur for footings in the conservation areas as it is understood that no ground is to be broken in these areas (i.e. no excavation of the footings will occur). Furthermore, Douglas recommends that a CEMP should be prepared and implemented during potential future site works including a UFP if potential HBM is encountered during demolition and construction works.

10. Conclusions and Recommendations

Areas that may be impacted by potential contamination were identified on the basis of the available desktop site information and a site walkover. Based on the findings of the assessment, the potential for gross chemical contamination to be present within the site is considered to be low.

Based on the assessment findings, Douglas recommends that an intrusive soil investigation is required within Rural Blocks 1614, 1602 and 1461, Belconnen (within proposed tower locations 229A, 230A, 267A and 268A) due to the identified PFAS contamination and identified potential fill. It is noted that the works should be conducted as part of the Development Application (DA) submission (noting that this PSI will form part of an EIS submission). A HAZMAT survey is also recommended prior to the demolition of the existing towers where the tower footings will be exposed and removed. It is noted that the works should be conducted as part of the DA submission. Validation sampling of the soil where footings were located should also be conducted should HBM be identified in the HAZMAT survey and demolition works.

Potential PFAS contamination was identified within the adjacent site to the north (LMWQCC, Rural Block 1553, Belconnen) and the ACT EPA stated that the PFAS buffer zone extends into the northern portion of Rural Block 1614, Belconnen, where proposed towers 229A and 267A are located. The site walkover identified possible fly-tipping with the presence of bricks encountered across the ground surface within proposed tower location 267A and a possible fill mound within the vicinity of proposed tower location

230A. Identified fill also appeared to be present in aerial photograph 1975, located south-east of proposed tower location 267A, adjacent to proposed tower location 229A and within and to the west of proposed tower locations 268A and 230A. Douglas notes that due to the presence of dense vegetation across the site, it was difficult to establish areas of potential fill during the walkover.

Douglas also recommends that the following measures are conducted at the site during any future development works:

- A CEMP should be prepared including an 'unexpected finds protocol' (i.e., asbestos in fill/potential fill associated with agricultural land use, hydrocarbon affected soils including staining and odours, evidence of heavy pesticide use and HBM) and implemented during potential future site works;
- Should suspected asbestos containing materials be encountered at the site, the affected area should be fenced off and assessed by a licensed asbestos assessor; and
- Should fill or natural material be required to be disposed or reused off-site, it must first be assessed in accordance with ACT EPA Information Sheet 4, Requirements for the Reuse and Disposal of Contaminated Soil in the ACT.

11. References

ACT EPA. (2022). *Information Sheet 7: Guidance for undertaking preliminary contamination investigations for development purposes*. Canberra: ACT Environment Protection Authority.

DP. (2023). *Preliminary Geotechnical Investigation*. Document No.88458.03.R.001.Rev1: Douglas Partners Pty Ltd.

NEPC. (2013). *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) [NEPM]*. Australian Government Publishing Services Canberra: National Environment Protection Council.

NSW EPA. (2020). *Guidelines for Consultants Reporting on Contaminated Land*. Contaminated Land Guidelines: NSW Environment Protection Authority.

12. Limitations

Douglas Partners (Douglas) has prepared this report for this project at Coree, Stromlo, Belconnen in accordance with Douglas' proposal dated 8 September 2023 and acceptance received from Matthew Frawley of Riverview Projects (ACT) Pty Ltd for the Ginninderry Joint Venture dated 21 September 2023. The work was carried out under Douglas' Conditions of Engagement. This report is provided for the exclusive use of Riverview Projects (ACT) Pty Ltd for the Ginninderry Joint Venture 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 Douglas, does so entirely at its own risk and without recourse to Douglas for any loss or damage. In preparing this report Douglas has necessarily relied upon information provided by the client and/or their agents.

The results provided in the report are indicative of the sub-surface 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. Sub-surface conditions can change abruptly due to variable geological processes and also as a result of human influences. Such changes may occur after Douglas' field testing has been completed.

Douglas' advice is based upon the conditions encountered during this investigation. The accuracy of the advice provided by Douglas 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.

The assessment of atypical safety hazards arising from this advice is restricted to the environmental components set out in this report and based on known project conditions and stated design advice and assumptions. While some recommendations for safe controls may be provided, detailed 'safety in design' assessment is outside the current scope of this report and requires additional project data and assessment.

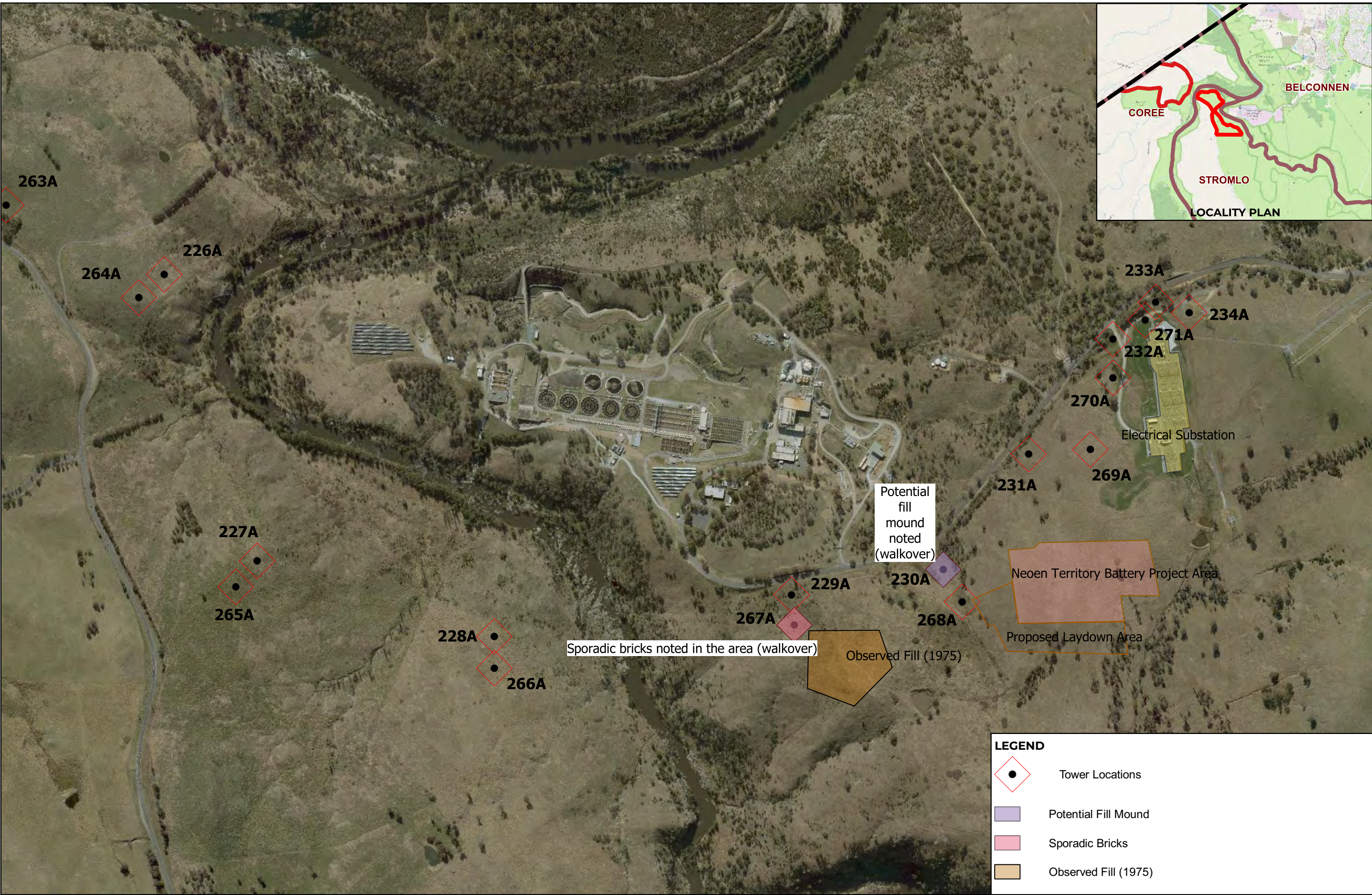
This report must be read in conjunction with all of the attached and should be kept in its entirety without separation of individual pages or sections. Douglas cannot be held responsible for interpretations or conclusions made by others unless they are supported by an expressed statement, interpretation, 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 Douglas. This is because this report has been written as advice and opinion rather than instructions for construction.

Douglas Partners Pty Ltd

Appendix A

Drawings 1 to 4



REV	DESCRIPTION/COMMENT	DATE	DRAWN BY	 OFFICE: CANBERRA 2/73 Sheppard St, Hume ACT 2620 (02)6260 2788	CLIENT: Riverview Projects (ACT) Pty Ltd	NOTE: 1: Basemap from ACTMapi (Dated 2022)	PROJECT NAME: Proposed Transmission Line Realignment	PROJECT ADDRESS: Rural Blocks: 1461, 1602, 1614, 1634, 1635 & 487, Stromlo	DRAWING TITLE: Site Features Plan	PROJECT NO: 225017.00
0		22.11.2023	CJ							DRAWING NO: 1
										REVISION: 1
COORDINATE REFERENCE SYSTEM: GDA2020, MGA ZONE55										

Appendix B

About This Report

Introduction

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

DP's 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.

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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 Conditions of Engagement 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, DP 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, DP 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, DP will be pleased to assist with investigations or advice to resolve the matter.

continued next page

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, DP 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. DP 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 C

Site History Searches

Volume 1675 Folio 16 Edition 3

AUSTRALIAN CAPITAL TERRITORY TITLE SEARCH

LAND

Coree Block 70 on Deposited Plan 8909

Coree Block 72 on Deposited Plan 8909

Coree Block 88 on Deposited Plan 9963

Lease commenced on 01/10/2003, granted on 07/11/2003, terminating on 01/10/2033

Area is 489.31 hectares or thereabouts

Proprietor

Bidgeeyarra Pty Limited

Address not available

REGISTERED ENCUMBRANCES AND INTERESTS

Original title is **Volume 1675 Folio 16**

Restrictions

Purpose Clause: Refer Crown Lease

S.167(5) Land Act 1991: REFER 3(B) OF CROWN LEASE

S.186C & D Land Act 1991: Applies For Term Of Lease

Easements

Easement In Crown Lease: Current

Registered Date	Dealing Number	Description
17/02/2014	1905154	Mortgage to National Australia Bank Limited
30/09/2015	1993575	Easement in gross
09/03/2016	2008979	Transfer of Easement - Refer Instrument (TGE1993575)

End of interests

Volume 1675 Folio 16 Edition All**AUSTRALIAN CAPITAL TERRITORY
HISTORICAL TITLE SEARCH****LAND**

Coree Block 70 on Deposited Plan 8909

Coree Block 72 on Deposited Plan 8909

Coree Block 88 on Deposited Plan 9963

Area is 489.31 hectares or thereabouts

Original title is **Volume 1675 Folio 16**

Registered Date	Dealing Number	Description
24/05/1996	992014	Application for Deposited Plan - lodged on 22/04/1996
10/09/1996	1004241	Application to register a Crown Lease - lodged on 09/08/1996
03/12/2003	1348999	Surrender of Lease - lodged on 01/12/2003
03/12/2003	1349000	Application to register a Crown Lease - lodged on 01/12/2003
03/12/2003	1349003	Application for Deposited Plan - lodged on 02/12/2003
17/02/2014	1905154	Mortgage to National Australia Bank Limited - lodged on 14/02/2014
06/08/2015	1987577	Production - TGE - lodged on 06/08/2015
30/09/2015	1993575	Easement in gross - lodged on 15/09/2015
30/09/2015	1994094	Production Completed (PROD1987577) - lodged on 15/09/2015
09/03/2016	2008979	Transfer of Easement - Refer Instrument (TGE1993575) - lodged on 09/03/2016

End of interests

Volume 1629 Folio 17 Edition All

AUSTRALIAN CAPITAL TERRITORY
HISTORICAL TITLE SEARCH

LAND

Stromlo Block 487 on Deposited Plan 9770

Area is 258.4 hectares or thereabouts

Original title is **Volume 1629 Folio 17**

Registered Date	Dealing Number	Description
01/05/2002	1259254	Application for Deposited Plan - lodged on 29/04/2002
01/05/2002	1259255	Application to register a Crown Lease - lodged on 29/04/2002
07/12/2005	1450353	Application to vary Crown Lease - refer instrument - lodged on 05/12/2005
24/05/2016	2030896	Transfer - lodged on 16/05/2016
14/02/2018	2136764	Vesting - changed owner name from 'Land Development Agency' to 'Suburban Land Agency'. Effective from 13/2/2018. - lodged on 13/02/2018
14/02/2018	2138277	Registrar's Dealing - lodged on 14/02/2018

End of interests

Volume 1629 Folio 17 Edition 5

AUSTRALIAN CAPITAL TERRITORY TITLE SEARCH

LAND

Stromlo Block 487 on Deposited Plan 9770

Lease commenced on 30/10/2001, granted on 11/02/2002, terminating on 29/10/2100

Area is 258.4 hectares or thereabouts

Proprietor

Suburban Land Agency

TransACT House, 470 Northbourne Avenue Dickson ACT, 2602

REGISTERED ENCUMBRANCES AND INTERESTS

Original title is **Volume 1629 Folio 17**

Restrictions

Purpose Clause: Refer Crown Lease

S.167(5) Land Act 1991: Applies For Term Of Lease

S.186C & D Land Act 1991: Applies For Term Of Lease

Easements

Easement In Crown Lease: Current

Registered Date	Dealing Number	Description
07/12/2005	1450353	Application to vary Crown Lease - refer instrument

End of interests

Volume N/A Folio N/A Edition N/A

AUSTRALIAN CAPITAL TERRITORY
ADMINISTRATIVE PARCEL - NO TITLE ISSUED

LAND

Belconnen Section Block 1461 on Deposited Plan 6946

End of interests

Volume 2351 Folio 49 Edition All

AUSTRALIAN CAPITAL TERRITORY HISTORICAL TITLE SEARCH

LAND

Belconnen Block 1634 on Deposited Plan 11572

Belconnen Block 1602 on Deposited Plan 9992

Area is 3158000 square metres or thereabouts

Original title is **Volume 2351 Folio 49**

Registered Date	Dealing Number	Description
14/12/2000	1187501	Application for Deposited Plan - lodged on 11/12/2000
29/01/2001	1193041	Easement in Gross continued by S.91A/91B/91C Land Titles Act 1925 - lodged on 24/01/2001
29/01/2001	1193044	Mortgage to COMMONWEALTH BANK OF AUSTRALIA (continued by S.91A/91B/91C Land Titles Act 1925) - lodged on 24/01/2001
09/02/2004	1358398	Application to register a Crown Lease - lodged on 04/02/2004
09/02/2004	1358433	Application for Deposited Plan - lodged on 04/02/2004
29/10/2015	1999929	Discharge of Mortgage (M1193044) - lodged on 29/10/2015
29/10/2015	1999930	Production - TGE - lodged on 29/10/2015
05/11/2015	2000896	Withdraw Production (PROD1999930) - lodged on 05/11/2015
06/11/2015	2001054	Requisition - Easement lodged on 29/10/2015 - instrument number of TGE 2000017 - lodged on 06/11/2015
25/05/2017	2092109	Withdrawal Requisition of Lodged Dealings (REQ2001054) - Rejected Out of Time - lodged on 25/05/2017
16/10/2017	2116495	Requisition - Easement lodged on 11/10/2017 - instrument number of 2110941 - lodged on 16/10/2017
19/03/2018	2143851	Production - TGE - lodged on 15/03/2018
23/04/2018	2151032	Withdraw Production (PROD2143851) - lodged on 23/04/2018
24/04/2018	2151449	Withdrawal Requisition of Lodged Dealings (REQ2116495) - Rejected out of Time - lodged on 24/04/2018
04/06/2018	2158547	Production - TGE continued by S.91A/91B/91C Land Titles Act 1925 - lodged on 01/06/2018
12/06/2018	2158548	Determination of Crown Lease by Surrender - lodged on 08/06/2018
13/06/2018	2158549	Application to Register Deposited Plan removing parcels BELC Section:0-1 Block:1601 - lodged on 13/06/2018
14/06/2018	2158550	Application to Register a Crown Lease (DCL2158548) - lodged on 14/06/2018
14/06/2018	2158551	Easement in Gross - Water Supply - lodged on 14/06/2018
14/06/2018	2160567	Production Completed (PROD2158547) - lodged on 14/06/2018

Registered Date	Dealing Number	Description
14/06/2018	2160567	Production Completed (PROD2158547) - lodged on 14/06/2018
25/07/2018	2168057	Production - TGE - lodged on 23/07/2018
27/07/2018	2168056	Easement in gross transmission lines - lodged on 25/07/2018
27/07/2018	2168326	Production Completed (PROD2168057) - lodged on 25/07/2018
08/12/2021	3127304	Miscellaneous Application - Acquisition of an Interest in Land - Refer Instrument - lodged on 06/12/2021
24/06/2022	3171014	Caveat by Neoen Australia Pty Limited (ACN: 160 905 706) - lodged on 23/06/2022

End of interests

ADMINISTRATIVE INTERESTS

Administrative interests information is **not** guaranteed by the Registrar-General, and the Registrar-General nor an authorised entity incurs liability for any omission, misstatement or inaccuracy in the information.

ACT Planning and Land Authority - For further information concerning the following administrative interests, please refer to decided development application information available at <https://www.planning.act.gov.au/> or on the DA Finder App, available for download on iOS and Android mobile devices. Alternatively, please contact Access Canberra Land, Planning and Building Services at ACEPDcustomerservices@act.gov.au or 6207 1923. The ACT planning authority's administrative interest information has been provided to the Registrar-General since 1 February 2010.

Reference Number	Type	Lodgement Date	Assessment Track	Status	Status Date
201121040	Development Application	09/02/2012	MERIT TRACK - MAJOR NOTIFICATION	APPROVAL CONDITIONAL	23/03/2012

Description

NON RESIDENTIAL - Maintenance of three existing crossing associated with the access along the existing Williamsdale to Belconnen transmission line. The three crossings vary in work required from rock stabilisation of banks to geofabric crossing and approaches to allow vehicle access.

Volume N/A Folio N/A Edition N/A

AUSTRALIAN CAPITAL TERRITORY
ADMINISTRATIVE PARCEL - NO TITLE ISSUED

LAND

Belconnen Section Block 1461 on Deposited Plan 6946

End of interests

Helan Samuval

From: Jennings, RussellC <RussellC.Jennings@act.gov.au>
Sent: Monday, 16 October 2023 2:58 PM
To: Helan Samuval
Cc: Contaminated Sites
Subject: RE: Contaminated Land Search - Application, 9CWHTR2K, Helan Samuval
[SEC=UNCLASSIFIED, DLM=Sensitive: Personal]

OFFICIAL

Dear Ms Samuval

RE: CONTAMINATED LAND SEARCH

Thank you for your search form request of 29/09/2023 enquiring about:

Block 1461 Section 0 - Belconnen

Block 1602 Section 0 - Belconnen

Block 1614 Section 0 - Belconnen

Block 1634 Section 0 - Belconnen

Block 1635 Section 0 - Belconnen

Block 88 Section 0 - Coree

Block 487 Section 0 - Stromlo

Records held by the Environment Protection Authority (EPA) for the above block(s) indicate the following:

BECLONNEN BLOCK 1461

The block is not recorded on the EPA's contaminated sites management database but is present on the geographic information system.

Areas of environmental concern which have not been recorded by the EPA and are associated with rural activities may exist within the block. These may include fuel storage and dispensing facilities, waste disposal sites associated with domestic and chemical waste disposal, animal burial pits, hazardous materials storage (e.g. Pesticides/herbicides, lubricants etc.) and hazardous materials contained in building structures and fittings (e.g. Asbestos, PCB's, lead etc.).

The EPA has not issued any orders of assessment or remediation under sections 91C (1) or 91D (1) respectively, environment protection orders under sections 125 (2) or (3), requested an audit under section 76 (2) or received an audit notification under section 76A (1) of the Environment Protection Act 1997 (the Act) over the site and as a result the site is not recorded on the Register of contaminated sites under section 21A of the Act.

The information detailed above only relates to records held by the EPA and may not represent the actual condition of the site.

At present the EPA has no information on contamination of the above block(s) other than as detailed above. However, this does not absolutely rule out the possibility of contamination and should not be interpreted as a warranty that there is no contamination.

I appreciate that this does not absolutely rule out the existence of contamination of the soils. If you or your clients wish to be completely sure you, or they, should arrange to conduct independent tests.

BELCONNEN BLOCK 1614

The block is not recorded on the EPA's contaminated sites management database and but is present on the geographic information system.

The site is adjacent to BELCONNEN BLOCK 1553 occupied by the Lower Molonglo Water Quality Control Centre which operates as a sewage treatment plant. The facility is authorised under the Environment Protection Act 1997.

EPA records also indicate that hazardous materials associated with fuel storage facilities are located on BELCONNEN BLOCK 1553. A development application was lodged in February 2000 for the removal of two

underground fuel storage tanks. The EPA received the tank excavation assessment report in 2016 indicating that tanks at the site had been removed and the site validated in May 2000. EPA records indicate that there are still other fuel storage tanks located on the block associated with the operation of the incinerator.

Chemical storage is also likely to occur at the site associated with the operation of the sewage treatment plant.

The ACT EPA Contaminated Sites Environment Protection Policy 2017 list chemical storage, sewage treatment works and fuel storage as past activities associated with land contamination.

Under the precautionary principal all blocks which contain fuel storage, chemical storage or sewage treatment facilities are identified and persons making enquiries are made aware of the potential for impacts due to the ability of contaminants associated with these activities to migrate through the environment.

The EPA was notified under section 23A of the Environment Protection Act 1997 of the presence asbestos contaminated fill at BELCONNEN BLOCK 1553 site in February 2009. Records indicate that the material subject to this notification was assessed and was found suitable for retention on-site subject to the implementation of a site specific asbestos management plan. The EPA endorsed the findings of this assessment in November 2009.

The contamination mapping tools indicate that PFAS has been noted to be onsite at BELCONNEN BLOCK 1553 but the contamination is unquantified and has not been investigated to date. The buffer zone around this contamination goes over the north section of BLOCK 1614

The EPA has not issued any orders of assessment or remediation under sections 91C (1) or 91D (1) respectively, environment protection orders under sections 125 (2) or (3), requested an audit under section 76 (2) or received an audit notification under section 76A (1) of the Environment Protection Act 1997 (the Act) over the site and as a result the site is not recorded on the Register of contaminated sites under section 21A of the Act.

The information detailed above only relates to records held by the EPA and may not represent the actual condition of the site.

At present the EPA has no information on contamination of the above block(s) other than as detailed above. However, this does not absolutely rule out the possibility of contamination and should not be interpreted as a warranty that there is no contamination.

I appreciate that this does not absolutely rule out the existence of contamination of the soils. If you or your clients wish to be completely sure you, or they, should arrange to conduct independent tests.

BELCONNEN BLOCK 1602

The block is not recorded on the EPA's contaminated sites management database and but is present on the geographic information system.

The site is adjacent to BELCONNEN BLOCK 1553 occupied by the Lower Molonglo Water Quality Control Centre which operates as a sewage treatment plant. The facility is authorised under the Environment Protection Act 1997.

EPA records also indicate that hazardous materials associated with fuel storage facilities are located on BELCONNEN BLOCK 1553. A development application was lodged in February 2000 for the removal of two underground fuel storage tanks. The EPA received the tank excavation assessment report in 2016 indicating that tanks at the site had been removed and the site validated in May 2000. EPA records indicate that there are still other fuel storage tanks located on the block associated with the operation of the incinerator.

Chemical storage is also likely to occur at the site associated with the operation of the sewage treatment plant.

The ACT EPA Contaminated Sites Environment Protection Policy 2017 list chemical storage, sewage treatment works and fuel storage as past activities associated with land contamination.

Under the precautionary principal all blocks which contain fuel storage, chemical storage or sewage treatment facilities are identified and persons making enquiries are made aware of the potential for impacts due to the ability of contaminants associated with these activities to migrate through the environment.

The EPA was notified under section 23A of the Environment Protection Act 1997 of the presence asbestos contaminated fill at BELCONNEN BLOCK 1553 site in February 2009. Records indicate that the material subject to this notification was assessed and was found suitable for retention on-site subject to the implementation of a site specific asbestos management plan. The EPA endorsed the findings of this assessment in November 2009.

The contamination mapping tools indicate that PFAS has been noted to be onsite at BELCONNEN BLOCK 1553 but the contamination is unquantified and has not been investigated to date.

The EPA has not issued any orders of assessment or remediation under sections 91C (1) or 91D (1) respectively, environment protection orders under sections 125 (2) or (3), requested an audit under section 76 (2) or received an audit notification under section 76A (1) of the Environment Protection Act 1997 (the Act) over the site and as a result the site is not recorded on the Register of contaminated sites under section 21A of the Act.

The information detailed above only relates to records held by the EPA and may not represent the actual condition of the site.

At present the EPA has no information on contamination of the above block(s) other than as detailed above. However, this does not absolutely rule out the possibility of contamination and should not be interpreted as a warranty that there is no contamination.

I appreciate that this does not absolutely rule out the existence of contamination of the soils. If you or your clients wish to be completely sure you, or they, should arrange to conduct independent tests.

BELCONNEN BLOCK 1634

The block is not recorded on the EPA's contaminated sites management database but is present on the Geographic Information System

Areas of environmental concern, which have not been not recorded by the EPA, associated with rural activities may exist at this site. These may include fuel storage and dispensing facilities, waste disposal sites associated with municipal and chemical waste disposal, animal burial pits, hazardous materials storage (e.g. pesticides/herbicides, veterinary chemicals, lubricants etc.) and hazardous materials contained in building structures and fittings (e.g. asbestos, PCB's, lead etc.).

As part of ACT second electrical supply project, the northern portion of the block was assessed in 2018. The EPA reviewed the report titled "ACT Second Electrical Supply Project Preliminary Site Investigation" dated 2 February 2018 by WSP Australia Pty Ltd.

The EPA assessed the report and supported the consultant's findings that the area of the block assessed was suitable "for development of a substation and associated transmission line network" from a contamination perspective subject to the implementation of a development area specific construction environmental management plan (CEMP). EPA records indicate that the second electrical supply project area was managed in accordance with a CEMP.

The EPA has not issued any orders of assessment or remediation under sections 91C (1) or 91D (1) respectively, environment protection orders under sections 125 (2) or (3), requested an audit under section 76 (2) or received an audit notification under section 76A (1) of the Environment Protection Act 1997 (the Act) over the site and as a result the site is not recorded on the Register of contaminated sites under section 21A of the Act.

The information detailed above only relates to records held by the EPA and may not represent the actual condition of the site.

At present the EPA has no information on contamination of the above block(s) other than as detailed above. However, this does not absolutely rule out the possibility of contamination and should not be interpreted as a warranty that there is no contamination.

I appreciate that this does not absolutely rule out the existence of contamination of the soils. If you or your clients wish to be completely sure you, or they, should arrange to conduct independent tests.

BELCONNEN BLOCK 1635

The block is not recorded on the EPA's contaminated sites management database but is present on the Geographic Information System

Areas of environmental concern, which have not been not recorded by the EPA, associated with rural activities may exist at this site. These may include fuel storage and dispensing facilities, waste disposal sites associated with municipal and chemical waste disposal, animal burial pits, hazardous materials storage (e.g. pesticides/herbicides, veterinary chemicals, lubricants etc.) and hazardous materials contained in building structures and fittings (e.g. asbestos, PCB's, lead etc.).

As part of ACT second electrical supply project, the northern portion of the block was assessed in 2018. The EPA reviewed the report titled "ACT Second Electrical Supply Project Preliminary Site Investigation" dated 2 February 2018 by WSP Australia Pty Ltd.

The EPA assessed the report and supported the consultant's findings that the area of the block assessed was suitable "for development of a substation and associated transmission line network" from a contamination perspective subject to the implementation of a development area specific construction environmental management plan (CEMP). EPA records indicate that the second electrical supply project area was managed in accordance with a CEMP.

The EPA has not issued any orders of assessment or remediation under sections 91C (1) or 91D (1) respectively, environment protection orders under sections 125 (2) or (3), requested an audit under section 76 (2) or received an audit notification under section 76A (1) of the Environment Protection Act 1997 (the Act) over the site and as a result the site is not recorded on the Register of contaminated sites under section 21A of the Act.

The information detailed above only relates to records held by the EPA and may not represent the actual condition of the site.

At present the EPA has no information on contamination of the above block(s) other than as detailed above. However, this does not absolutely rule out the possibility of contamination and should not be interpreted as a warranty that there is no contamination.

I appreciate that this does not absolutely rule out the existence of contamination of the soils. If you or your clients wish to be completely sure you, or they, should arrange to conduct independent tests.

COREE BLOCK 88

The block is not recorded on the EPA's contaminated sites management database but is present on the geographic information system.

Areas of environmental concern which have not been recorded by the EPA and are associated with rural activities may exist within the block. These may include fuel storage and dispensing facilities, waste disposal sites associated with domestic and chemical waste disposal, animal burial pits, hazardous materials storage (e.g.

Pesticides/herbicides, lubricants etc.) and hazardous materials contained in building structures and fittings (e.g. Asbestos, PCB's, lead etc.).

The EPA has not issued any orders of assessment or remediation under sections 91C (1) or 91D (1) respectively, environment protection orders under sections 125 (2) or (3), requested an audit under section 76 (2) or received an audit notification under section 76A (1) of the Environment Protection Act 1997 (the Act) over the site and as a result the site is not recorded on the Register of contaminated sites under section 21A of the Act.

The information detailed above only relates to records held by the EPA and may not represent the actual condition of the site.

At present the EPA has no information on contamination of the above block(s) other than as detailed above. However, this does not absolutely rule out the possibility of contamination and should not be interpreted as a warranty that there is no contamination.

I appreciate that this does not absolutely rule out the existence of contamination of the soils. If you or your clients wish to be completely sure you, or they, should arrange to conduct independent tests.

STROMLO BLOCK 487

The block is recorded on the EPA's contaminated sites management database or geographic information system.

Sheep dip:

There is one plunge sheep dip site located on Block 487 Stromlo. It has been identified but not investigated.

Detailed below are the AMG co-ordinates recorded by the EPA for the sheep dip located on the block.

Block 487 Stromlo

"The Rivers"

x_co-ord. 677876.94246

y_co-ord. 6098266.50335

Surveyed - plunge dip

Buffered investigation area (100m radius)

The Contaminated Sites Environment Protection Policy 2017 lists sheep dips and associated activities as activities associated with land contamination.

Areas of environmental concern which have not been not recorded by the EPA associated with rural activities may also exist at the site. These may include fuel storage and dispensing facilities, waste disposal sites associated with municipal and chemical waste disposal, acceptance of uncontrolled fill, hazardous materials storage (eg. Pesticides/herbicides, lubricants etc.) and hazardous materials contained in building structures and fittings (eg. Asbestos, PCB's, lead etc.).

The EPA has not issued any orders of assessment or remediation under sections 91C (1) or 91D (1) respectively, environment protection orders under sections 125 (2) or (3), requested an audit under section 76 (2) or received an audit notification under section 76A (1) of the Environment Protection Act 1997 (the Act) over the site and as a result the site is not recorded on the Register of contaminated sites under section 21A of the Act.

The information detailed above only relates to records held by the EPA and may not represent the actual condition of the site.

At present the EPA has no information on contamination of the above block(s) other than as detailed above. However, this does not absolutely rule out the possibility of contamination and should not be interpreted as a warranty that there is no contamination.

I appreciate that this does not absolutely rule out the existence of contamination of the soils. If you or your clients wish to be completely sure you, or they, should arrange to conduct independent tests.

At present the EPA has no information on contamination of the above block(s). However, this does not absolutely rule out the possibility of contamination and should not be interpreted as a warranty that there is no contamination.

I appreciate that this does not absolutely rule out the existence of contamination of the soils. If you or your clients wish to be completely sure, you, or they, should arrange to conduct independent tests.

Yours sincerely

Russell C. Jennings | Environment Protection Officer

Phone: 02 6207 2157 | Email: russellc.jennings@act.gov.au

Access Canberra | Chief Minister, Treasury and Economic Development Directorate | ACT Government

Fourth Floor 480 Northbourne Ave. Dickson 2602 ACT | GPO Box 158 Canberra ACT 2601 | <http://www.act.gov.au/accesscbr>

We acknowledge the Traditional Custodians of the ACT, the

Nggunawal people. We acknowledge and respect their continuing culture

and the contribution they make to the life of this city and this region.

From: smartforms@act.gov.au <smartforms@act.gov.au>

Sent: Friday, September 29, 2023 2:03 PM

To: Contaminated Sites <ContaminatedSites@act.gov.au>

Subject: Contaminated Land Search - Application, 9CWHTR2K, Helan Samuval [SEC=UNCLASSIFIED, DLM=Sensitive: Personal]

Contaminated Land Search - Application

Form data summary

Customer details

Helan Samuval

Reference code

9CWHTR2K

For issues or questions relating to SmartForms please contact the Payment Services Integration Team on *5 4607 or email smartforms.admin@act.gov.au.

This email, and any attachments, may be confidential and also privileged. If you are not the intended recipient, please notify the sender and delete all copies of this transmission along with any attachments immediately. You should not copy or use it for any purpose, nor disclose its contents to any other person.

Shannon Goodsell

From: Jennings, RussellC <RussellC.Jennings@act.gov.au>
Sent: Tuesday, 21 November 2023 5:18 PM
To: Shannon Goodsell
Cc: Contaminated Sites; Power, David; Zhang, Jianmin
Subject: RE: Contaminated Land Search - dated 16 October 2023

OFFICIAL

Hi Shannon

All of the information in the contaminated land search was correct but after a talk with my colleagues and with Icon Water I can provide some context on why the buffer zone is there.

There are two potential causes of PFAS contamination on the site to which one is the far more likely candidate for why the buffer zone intersects over BLOCK 1614.

Some PFAS contamination has been found in the influent to the Lower Molonglo Water Quality Control Centre (BELCONNEN BLOCK 1553) reported by Icon Water in their annual report testing for a number of years. This is the waste water that is coming from across Canberra to the facility to be treated. The waste water is treated before being discharged into the Molonglo River. This treatment process separates out components from incoming waste into solids, nutrients and pathogens. The EPA understands that the PFAS is massed with the solids. These solids are incinerated on site and the ash from this incineration process is tested before it is land applied in NSW. These tests indicate that The PFAS is usually found to be below detection and in allowable limits if present. There is a very low risk that this would be the source of the PFAS buffer zone that the EPA has on its system.

The much more likely candidate for the size and shape of the buffer zone is the legacy of undocumented firefighting drills that took place on the site through, at least, the 1980-90's. The firefighting foams have an unknown PFAS impact at this time. Icon Water did preliminary testing once the PFAS contamination was known but have not made the levels public to date but these may be on the EPA's physical records but I have not had time to find these. The level of contamination is said to be low and will eventually dissipate in the ground water that will disperse downstream away from BLOCK 1614.

Testing in Molonglo River after discharge from the centre by Icon Water is showing that PFAS levels are mostly below the level of detection. Icon Water also carries out a Biological Monitoring Programs in the Molonglo and Murrumbidgee Rivers on the impact on species by the treated water which samples mostly downstream but some sampling sites are upstream nearer to Block 1614. If you wish to know to know more you can contact Ben Bryant at Icon Water on 02 6180 6117 or benjamin.bryant@iconwater.com.au

A buffer zone was placed around BLOCK 1553 on our mapping tools designating an elevated risk of the presence of PFAS but the levels of the contamination is not known. There is no evidence at present that PFAS is present on BLOCK 1614 but this should not be taken as a guarantee that the block is unaffected. There is a lower risk that land away from water channels would be affected.

If you or your clients wish to be completely sure you, or they, should arrange to conduct independent tests.

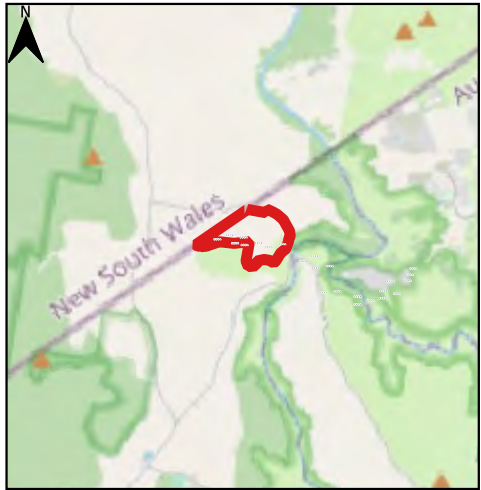
If there are any further questions please don't hesitate to contact me.

Thanks

Russell C. Jennings | Environment Protection Officer
Phone: 02 6207 2157 | Email: russellc.jennings@act.gov.au

Appendix D

Historical Aerial Photographs



Site Location

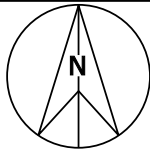
- Legend
- Approximate Tower Locations
 - Brake and Winch (pull) zones
 - Stage 1a existing access tracks
 - New Access Tracks
- No sediment control
 - New Access Tracks
- No sediment control
- Additional Track (14 Sept 2023)
 - Block Boundary: Rural Block 88, Coree
 - ACT Border
 - Rural Registered

NOTE:
1. Drawing adapted from aerial imagery from NSW
Government Spatial services Dated 1960

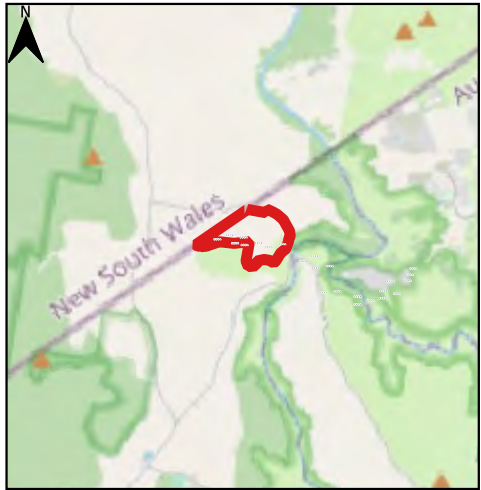
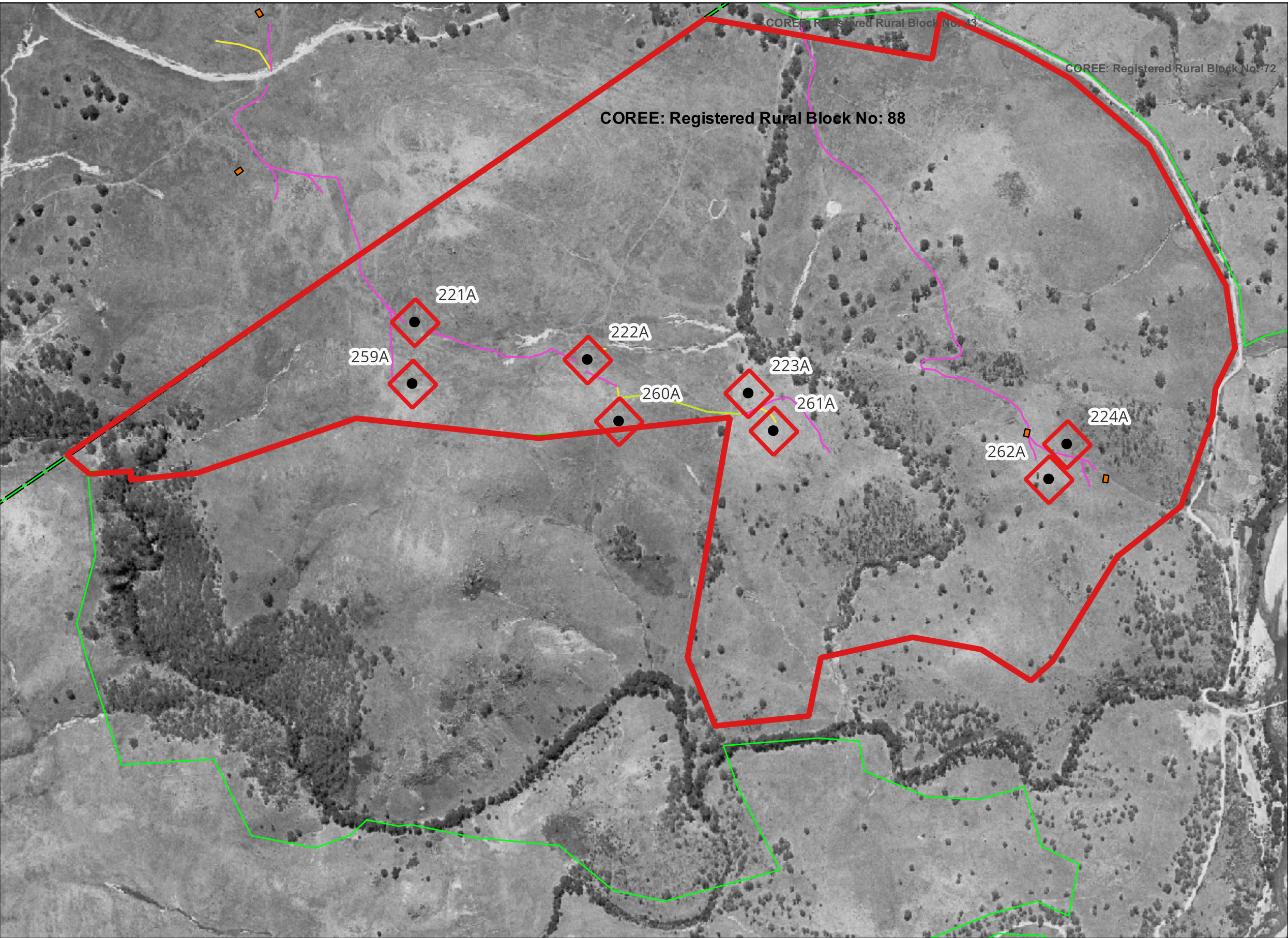


CLIENT: Riverview Projects (ACT) Pty Ltd
OFFICE: Canberra
DRAWN BY: HS
SCALE: 1:7834 @A3
DATE: 17.January.2024

TITLE: **Historical Aerial Imagery - 1960**
Proposed Transmission Line Realignment
Rural Block 88,Coree



Project: 225017.00
DRAWING No: D1
REVISION: 0



Site Location

Legend

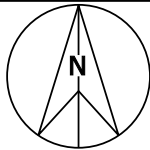
- Approximate Tower Locations
- Brake and Winch (pull) zones
- Stage 1a existing access tracks
- New Access Tracks
- No sediment control
- New Access Tracks
- No sediment control
- Additional Track (14 Sept 2023)
- Block Boundary: Rural Block 88, Coree
- ACT Border
- Rural Registered

NOTE:
1. Drawing adapted from aerial imagery from NSW
Government Spatial services Dated 1968

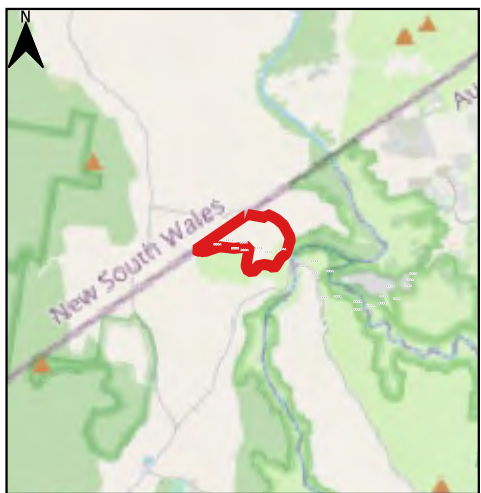
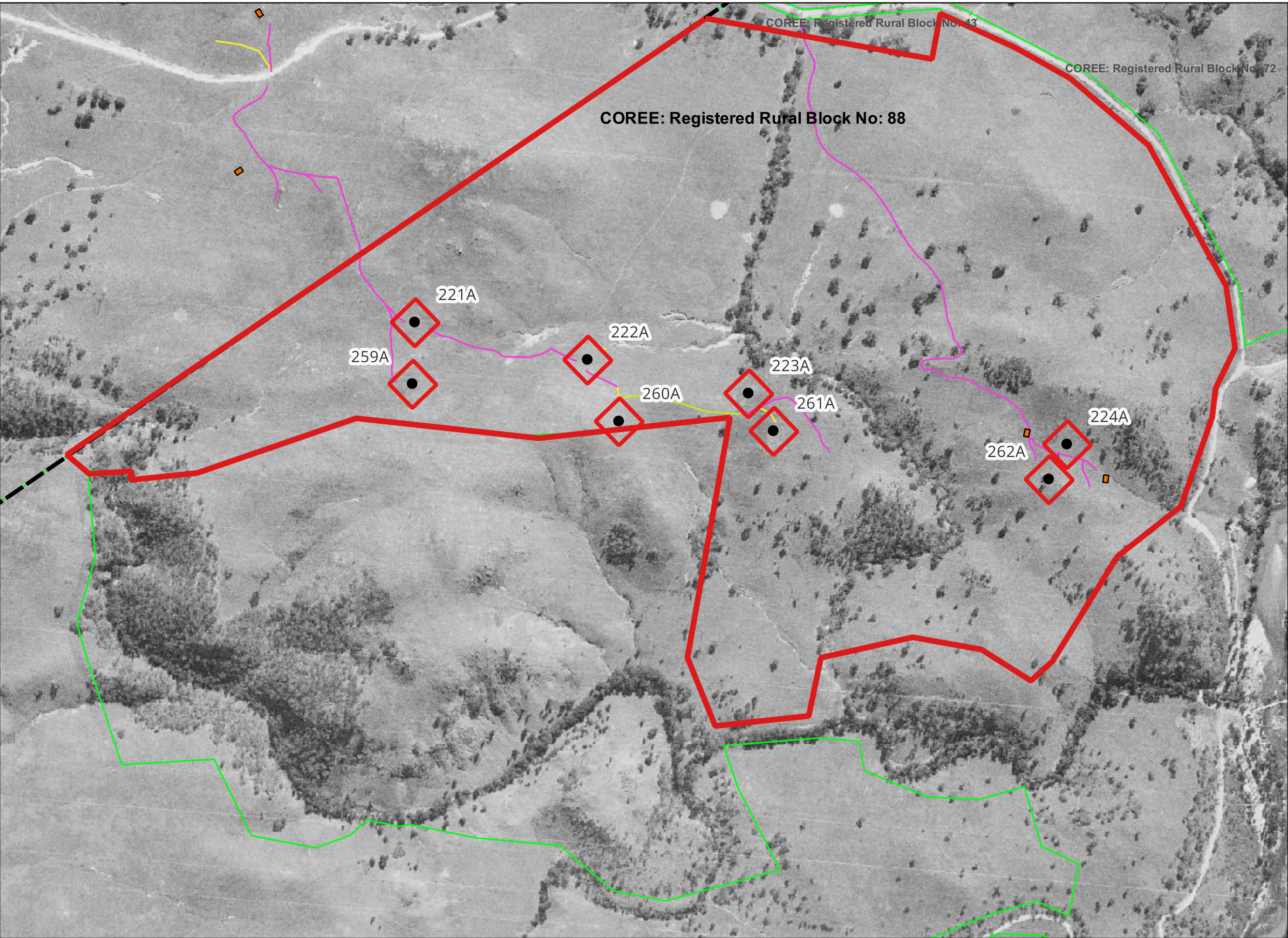


CLIENT: Riverview Projects (ACT) Pty Ltd
OFFICE: Canberra
SCALE: 1:7834 @A3
DRAWN BY: HS
DATE: 17.January.2024

TITLE: **Historical Aerial Imagery - 1968**
Proposed Transmission Line Realignment
Rural Block 88, Coree



Project: 225017.00
DRAWING No: D2
REVISION: 1



Site Location

Legend

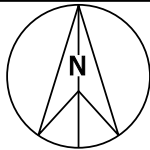
- Approximate Tower Locations
- Brake and Winch (pull) zones
- Stage 1a existing access tracks
- New Access Tracks
- No sediment control
- New Access Tracks
- No sediment control
- Additional Track (14 Sept 2023)
- Block Boundary: Rural Block 88, Coree
- ACT Border
- Rural Registered

NOTE:
1. Drawing adapted from aerial imagery from NSW Governmnet Spatial services Dated 1975

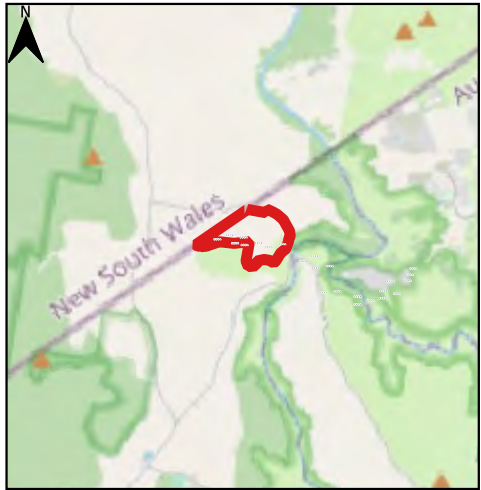
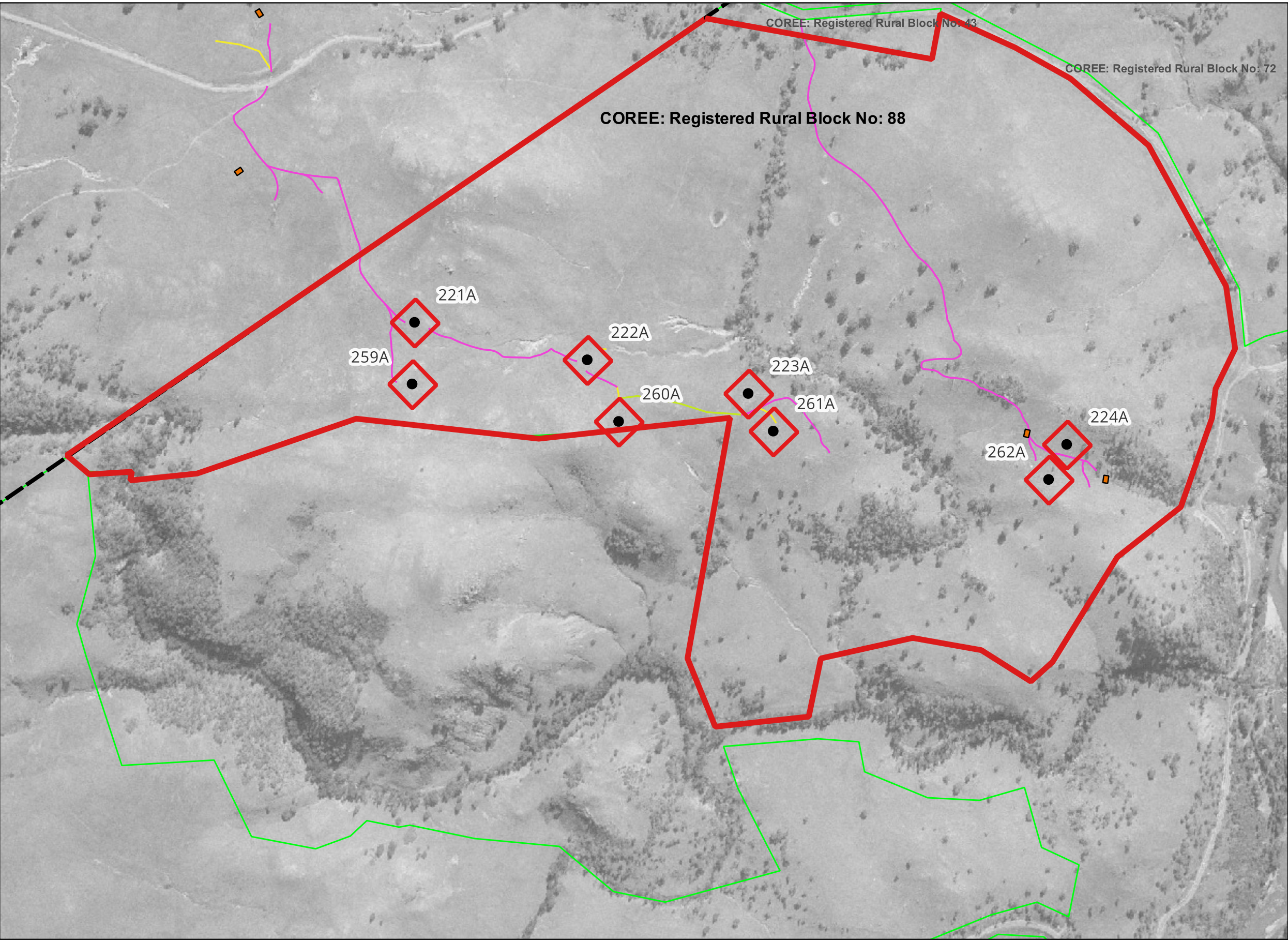


CLIENT: Riverview Projects (ACT) Pty Ltd
OFFICE: Canberra DRAWN BY: HS
SCALE: 1:7834 @A3 DATE: 17.January.2024

TITLE: **Historical Aerial Imagery - 1975**
Proposed Transmission Line Realignment
Rural Block 88,Coree



Project: 225017.00
DRAWING No: D3
REVISION: 1



Site Location

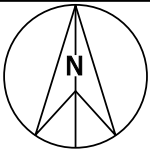
- Legend**
- Approximate Tower Locations
 - Brake and Winch (pull) zones
 - Stage 1a existing access tracks
 - New Access Tracks - No sediment control
 - New Access Tracks - No sediment control - Additional Track (14 Sept 2023)
 - Block Boundary: Rural Block 88, Coree
 - ACT Border
 - Rural Registered

NOTE:
1. Drawing adapted from aerial imagery from NSW Governmnet Spatial services Dated 1984

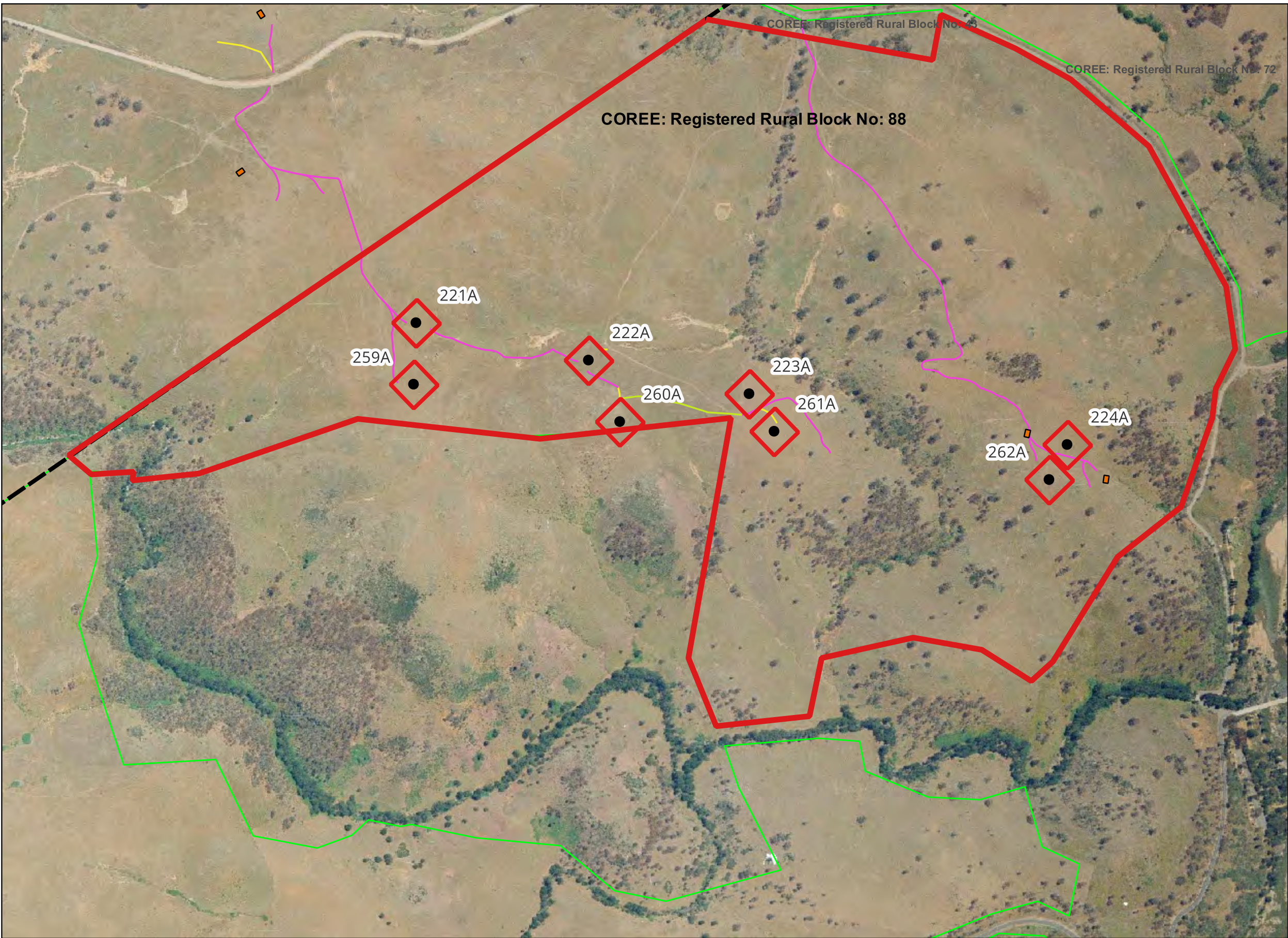


CLIENT: Riverview Projects (ACT) Pty Ltd
OFFICE: Canberra
DRAWN BY: HS
SCALE: 1:7834 @A3
DATE: 17.January.2024

TITLE: **Historical Aerial Imagery - 1984**
Proposed Transmission Line Realignment
Rural Block 88,Coree



Project: 225017.00
DRAWING No: D4
REVISION: 1



Site Location

Legend

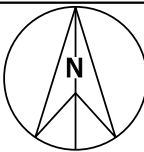
- Approximate Tower Locations
- Brake and Winch (pull) zones
- Stage 1a existing access tracks
- New Access Tracks
-No sediment control
- New Access Tracks
- No sediment control
- Additional Track (14 Sept 2023)
- Block Boundary: Rural Block 88, Coree
- ACT Border
- Rural Registered

NOTE:
1. Drawing adapted from aerial imagery from NSW Governmnet Spatial services Dated 1994

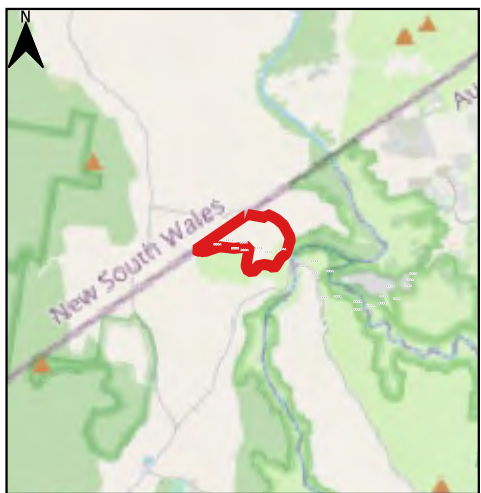
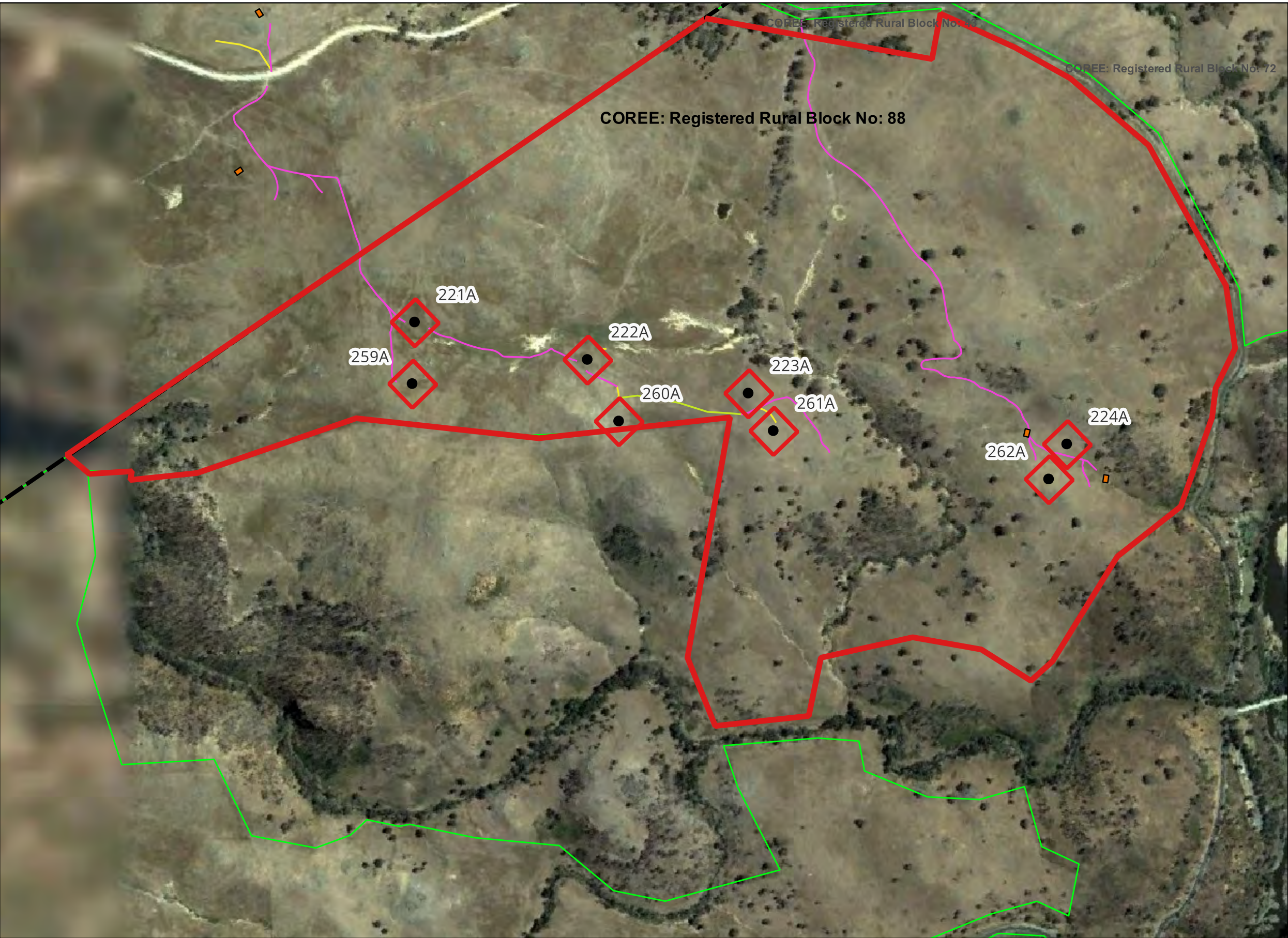


CLIENT:	Riverview Projects (ACT) Pty Ltd	
OFFICE:	Canberra	DRAWN BY: HS
SCALE: 1:7834 @A3	DATE: 17.January.2024	

TITLE: **Historical Aerial Imagery - 1994**
Proposed Transmission Line Realignment
Rural Block 88,Coree



Project:	225017.00
DRAWING No:	D5
REVISION:	1



Site Location

Legend

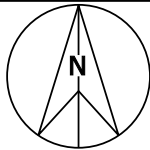
- Approximate Tower Locations
- Brake and Winch (pull) zones
- Stage 1a existing access tracks
- New Access Tracks
- No sediment control
- New Access Tracks
- No sediment control
- Additional Track (14 Sept 2023)
- Block Boundary: Rural Block 88, Coree
- ACT Border
- Rural Registered

NOTE:
1. Drawing adapted from aerial imagery from Google Earth Dated 2004

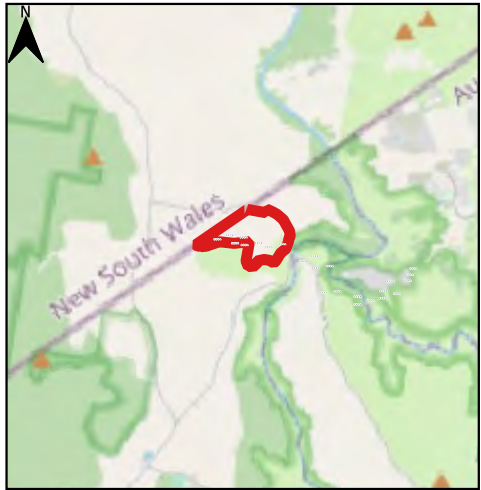


CLIENT: Riverview Projects (ACT) Pty Ltd
OFFICE: Canberra
SCALE: 1:7834 @A3
DRAWN BY: HS
DATE: 17.January.2024

TITLE: **Historical Aerial Imagery - 2004**
Proposed Transmission Line Realignment
Rural Block 88,Coree



Project: 225017.00
DRAWING No: D6
REVISION: 1



Site Location

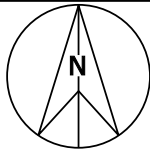
- Legend**
- Approximate Tower Locations
 - Brake and Winch (pull) zones
 - Stage 1a existing access tracks
 - New Access Tracks
- No sediment control
 - New Access Tracks
- No sediment control
- Additional Track (14 Sept 2023)
 - Block Boundary: Rural Block 88, Coree
 - ACT Border
 - Rural Registered

NOTE:
1. Drawing adapted from aerial imagery from Google Earth Dated 2012

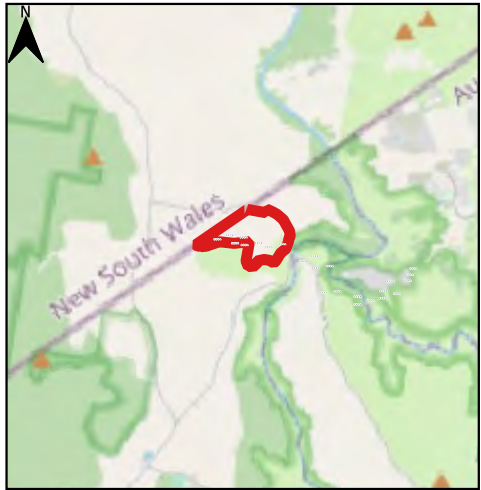
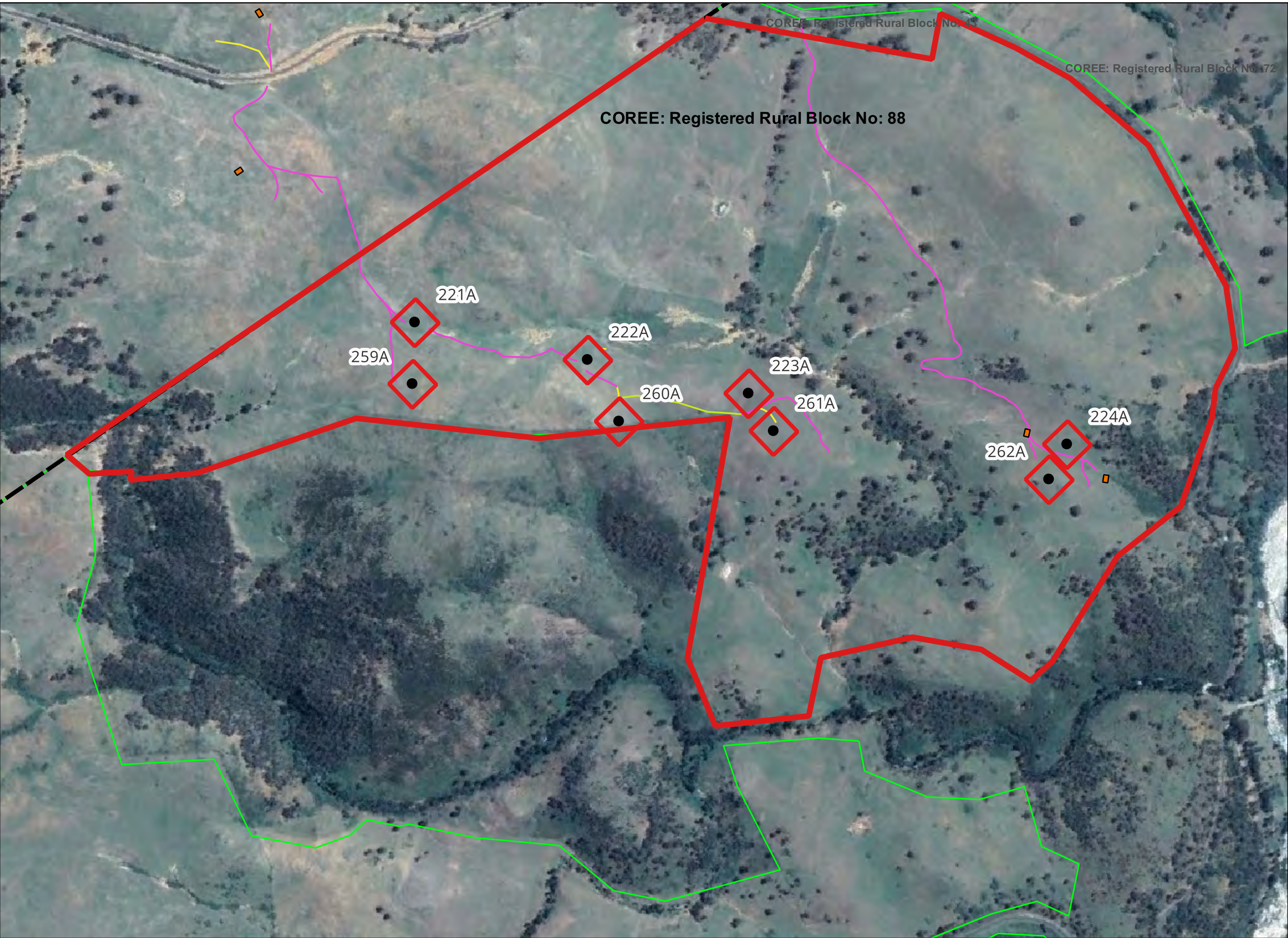


CLIENT: Riverview Projects (ACT) Pty Ltd
OFFICE: Canberra
DRAWN BY: HS
SCALE: 1:7834 @A3
DATE: 17.January.2024

TITLE: **Historical Aerial Imagery - 2012**
Proposed Transmission Line Realignment
Rural Block 88,Coree



Project: 225017.00
DRAWING No: D7
REVISION: 1



Site Location

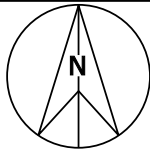
- Legend**
- Approximate Tower Locations
 - Brake and Winch (pull) zones
 - Stage 1a existing access tracks
 - New Access Tracks
- No sediment control
 - New Access Tracks
- No sediment control
- Additional Track (14 Sept 2023)
 - Block Boundary: Rural Block 88, Coree
 - ACT Border
 - Rural Registered

NOTE:
1. Drawing adapted from aerial imagery from Google Earth Dated 2019

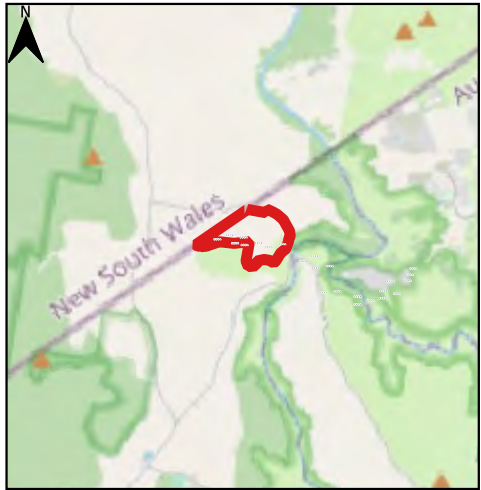


CLIENT: Riverview Projects (ACT) Pty Ltd
OFFICE: Canberra
DRAWN BY: HS
SCALE: 1:7834 @A3
DATE: 17.January.2024

TITLE: **Historical Aerial Imagery - 2019**
Proposed Transmission Line Realignment
Rural Block 88,Coree



Project: 225017.00
DRAWING No: D8
REVISION: 1



Site Location

Legend

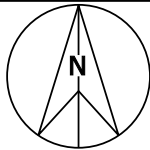
- Approximate Tower Locations
- Brake and Winch (pull) zones
- Stage 1a existing access tracks
- New Access Tracks
-No sediment control
- New Access Tracks
- No sediment control
- Additional Track (14 Sept 2023)
- Block Boundary: Rural Block 88, Coree
- ACT Border
- Rural Registered

NOTE:
1. Drawing adapted from aerial imagery from Google Earth Dated 2023

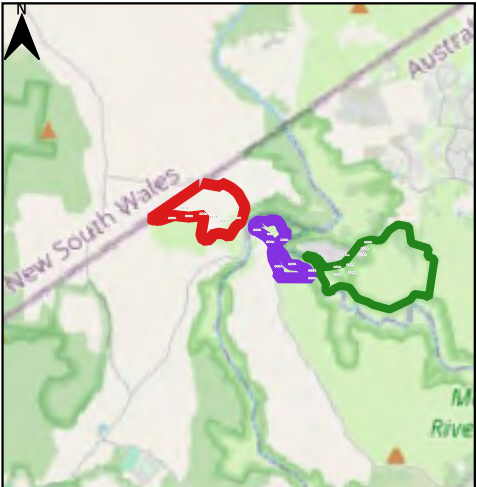
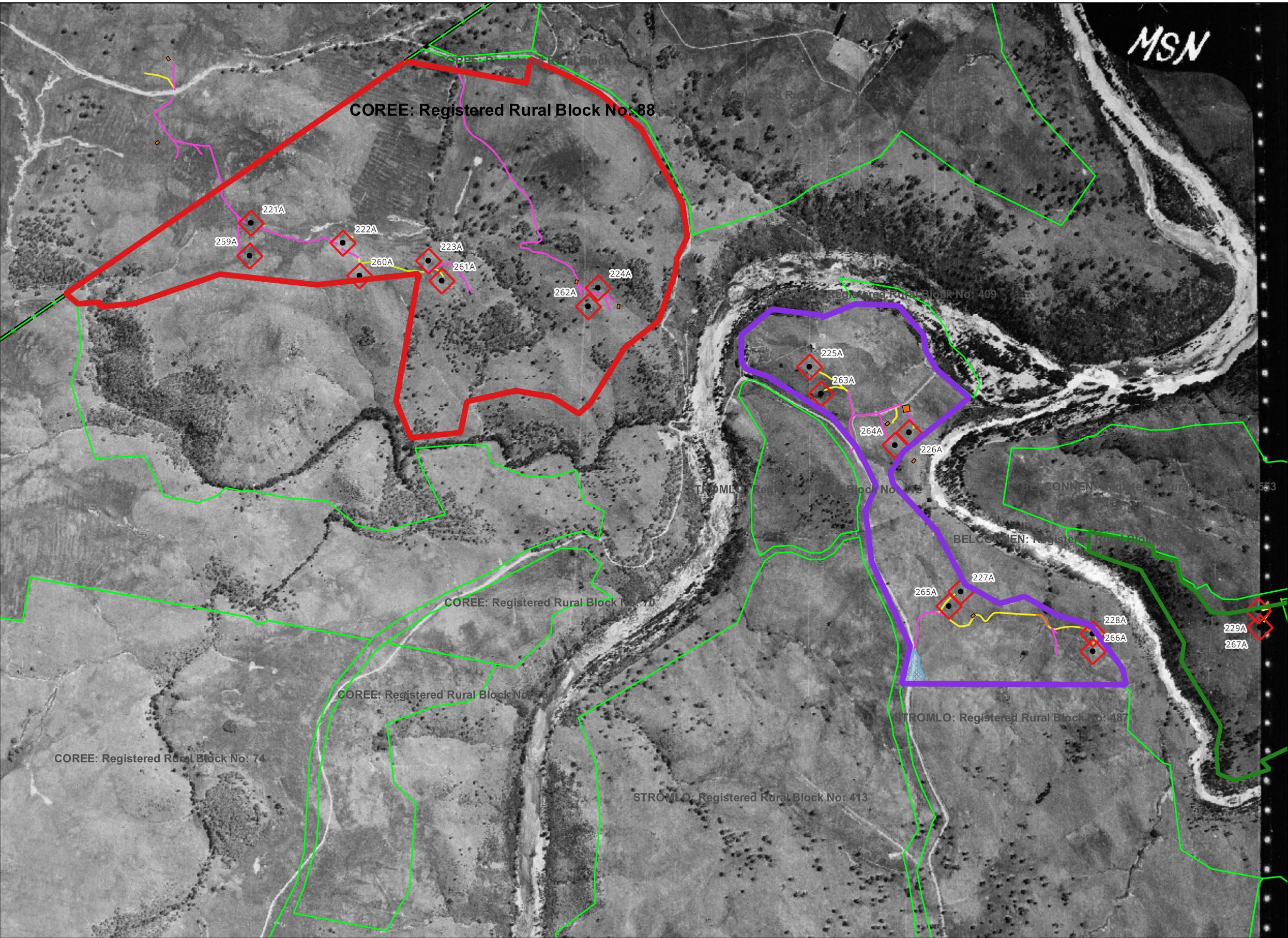


CLIENT: Riverview Projects (ACT) Pty Ltd
OFFICE: Canberra
DRAWN BY: HS
SCALE: 1:7834 @A3
DATE: 17.January.2024

TITLE: **Historical Aerial Imagery - 2023**
Proposed Transmission Line Realignment
Rural Block 88,Coree



Project: 225017.00
DRAWING No: D9
REVISION: 1



Site Location

- Legend**
- Approximate Tower Locations
 - Brake and Winch (pull) zones
 - Stage 1a existing access tracks
 - New Access Tracks - Sediment control
 - New Access Tracks - No sediment control
 - New Access Tracks - No sediment control - Additional Track (14 Sept 2023)
 - ACT Border
 - Construction areas
 - Block Boundaries: Rural Blocks 1602, 1614, 1634, 1635, 1461
 - Block Boundary: Rural Block 487, Stromlo
 - Block Boundary: Rural Block 88, Coree
 - Rural Registered

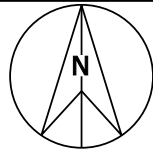
NOTE:
1. Drawing adapted from aerial imagery from NSW Government Spatial services Dated 1960



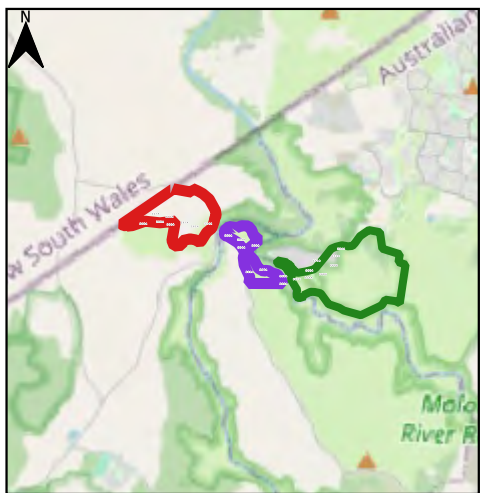
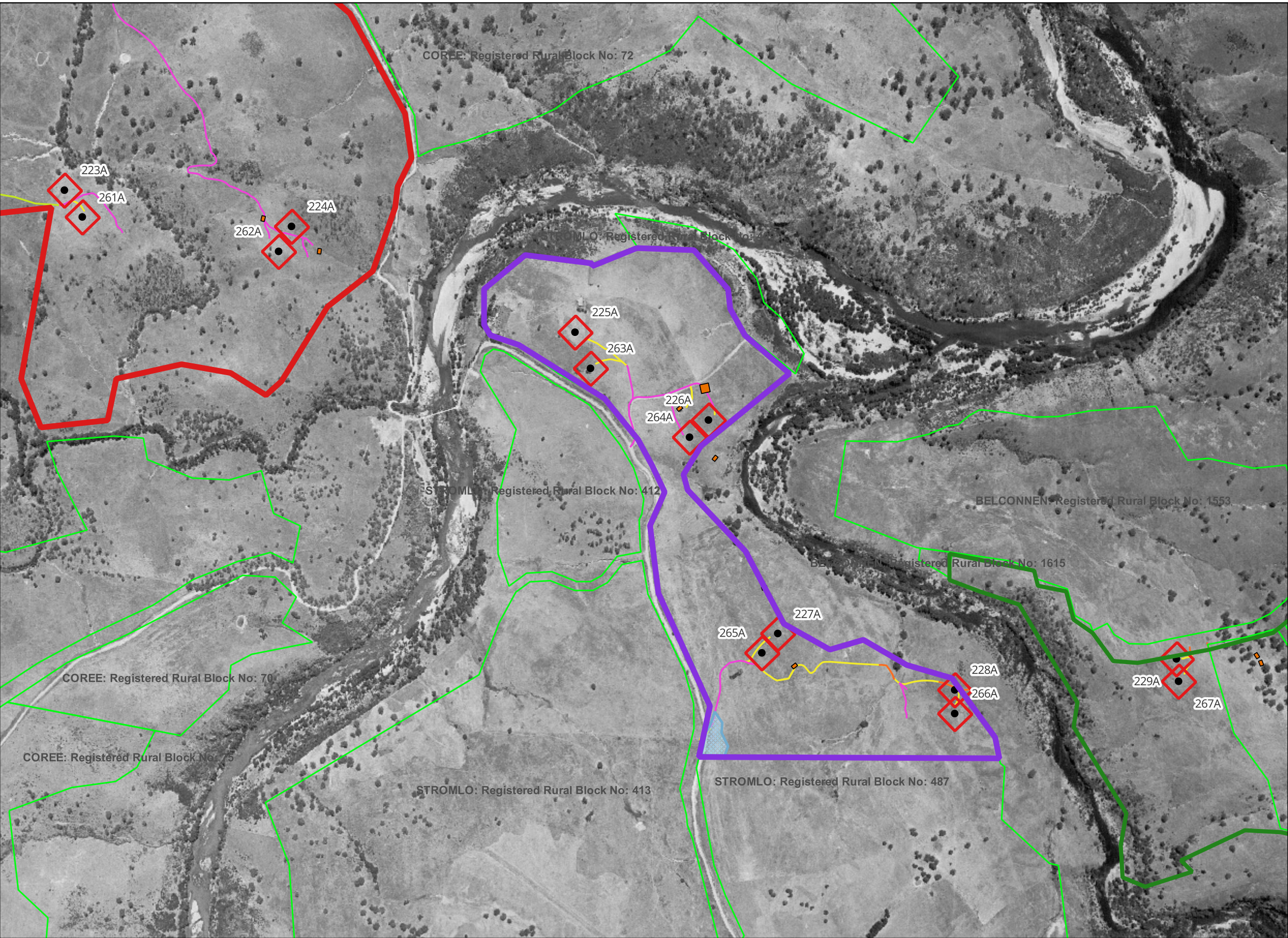
CLIENT: Riverview Projects (ACT) Pty Ltd
OFFICE: Canberra
SCALE: 1:14726 @A3

DRAWN BY: HS
DATE: 17.January.2024

TITLE: **Historical Aerial Imagery - 1960**
Proposed Transmission Line Realignment
Rural Block 487, Stromlo



Project: 225017.00
DRAWING No: D10
REVISION: 1



Site Location

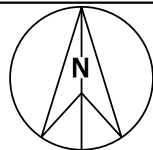
- Legend**
- Approximate Tower Locations
 - Brake and Winch (pull) zones
 - Construction areas
 - Stage 1a existing access tracks
 - New Access Tracks - Sediment control
 - New Access Tracks -No sediment control
 - New Access Tracks - No sediment control - Additional Track (14 Sept 2023)
 - Block Boundaries: Rural Blocks 1602, 1614, 1634, 1635, 1461
 - Block Boundary: Rural Block 487, Stromlo
 - Block Boundary: Rural Block 88, Coree
 - Rural Registered

NOTE:
1. Drawing adapted from aerial imagery from NSW Governmnet Spatial services Dated 1968

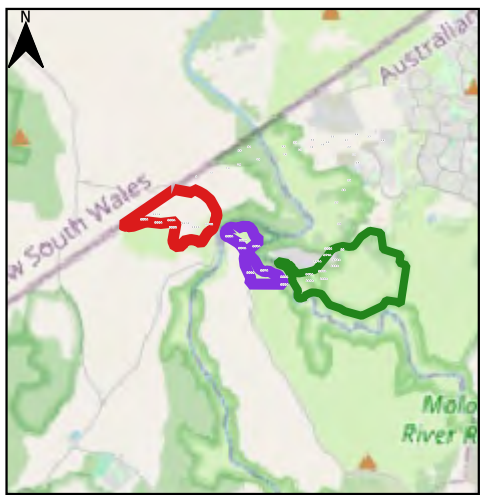
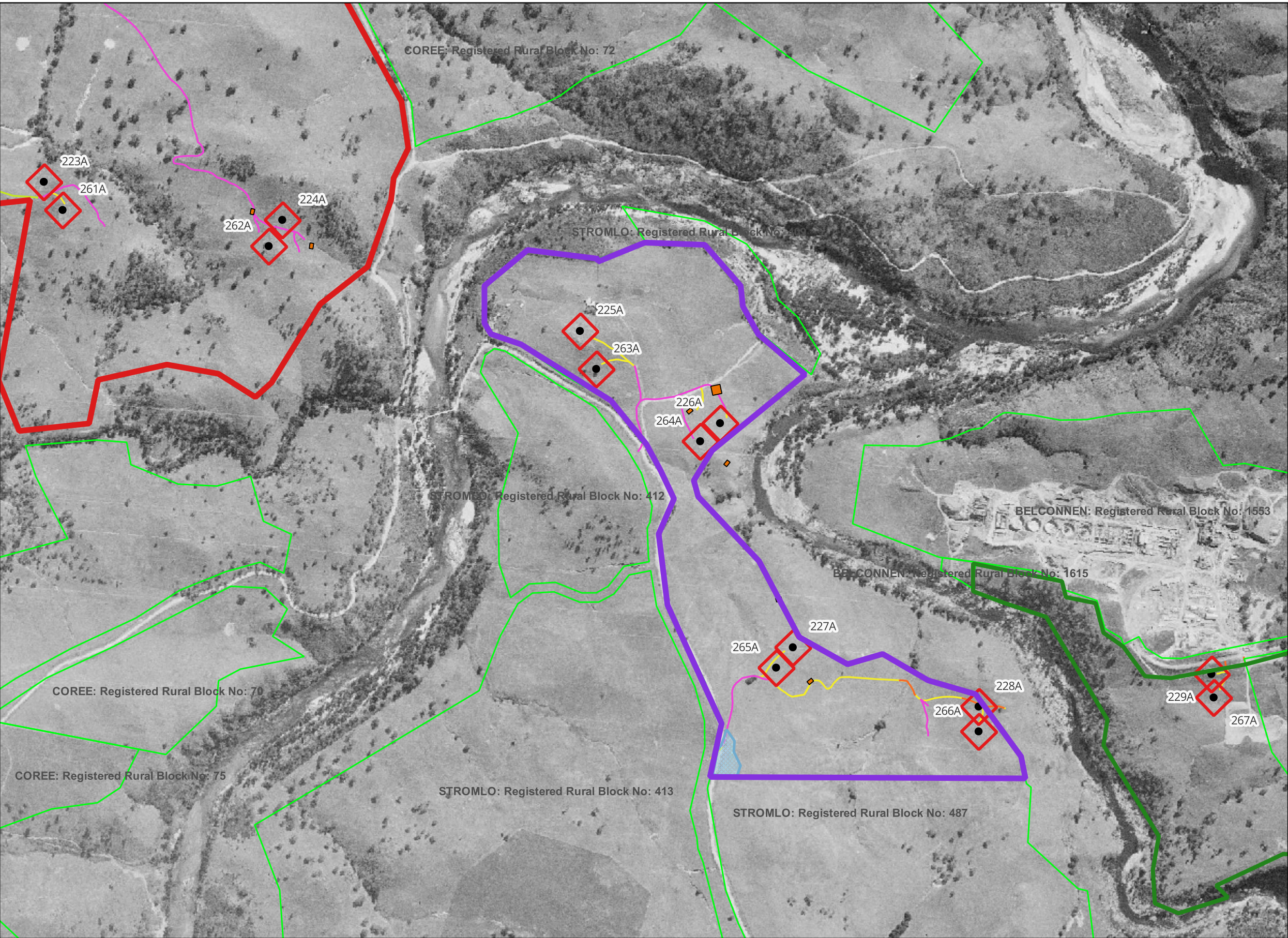


CLIENT: Riverview Projects (ACT) Pty Ltd
OFFICE: Canberra DRAWN BY: HS
SCALE: 1:10989 @A3 DATE: 17.January.2024

TITLE: **Historical Aerial Imagery - 1968**
Proposed Transmission Line Realignment
Rural Block 487, Stromlo



Project: 225017.00
DRAWING No: D11
REVISION: 1



Site Location

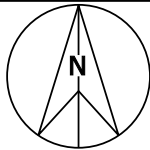
- Legend**
- Approximate Tower Locations
 - Brake and Winch (pull) zones
 - Construction areas
 - Stage 1a existing access tracks
 - New Access Tracks - Sediment control
 - New Access Tracks - No sediment control
 - New Access Tracks - No sediment control - Additional Track (14 Sept 2023)
 - Block Boundaries: Rural Blocks 1602, 1614, 1634, 1635, 1461
 - Block Boundary: Rural Block 487, Stromlo
 - Block Boundary: Rural Block 88, Coree
 - Rural Registered

NOTE:
1. Drawing adapted from aerial imagery from NSW Governmnet Spatial services Dated 1975

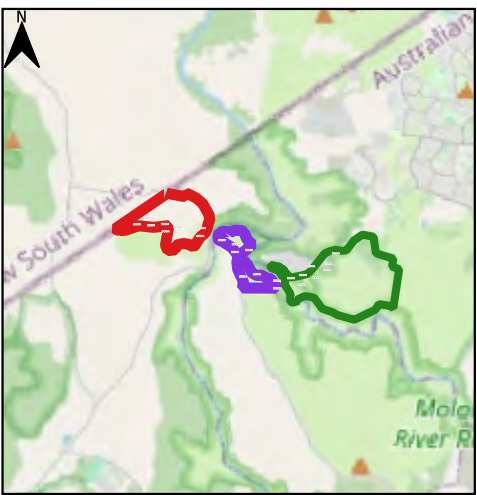
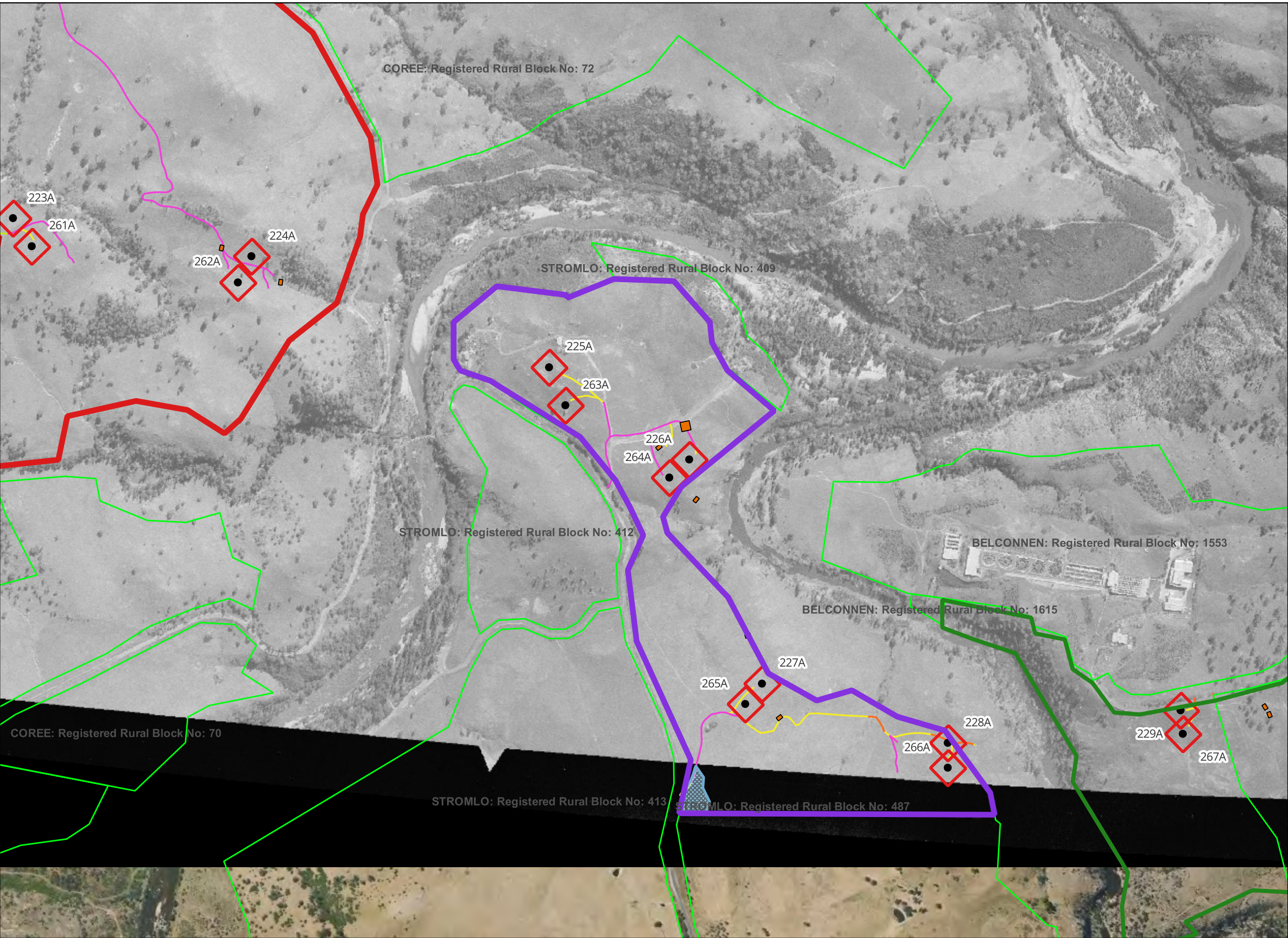


CLIENT:	Riverview Projects (ACT) Pty Ltd	
OFFICE:	Canberra	DRAWN BY: HS
SCALE:	1:10466 @A3	DATE: 17.January.2024

TITLE: **Historical Aerial Imagery - 1975**
Proposed Transmission Line Realignment
Rural Block 487, Stromlo



Project:	225017.00
DRAWING No:	D12
REVISION:	1



Site Location

Legend

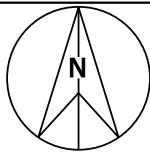
- Approximate Tower Locations
- Brake and Winch (pull) zones
- Construction areas
- Stage 1a existing access tracks
- New Access Tracks - Sediment control
- New Access Tracks -No sediment control
- New Access Tracks - No sediment control - Additional Track (14 Sept 2023)
- Block Boundaries: Rural Blocks 1602, 1614, 1634, 1635, 1461
- Block Boundary: Rural Block 487 Stromlo
- Block Boundary: Rural Block 88, Coree
- Rural Registered

NOTE:
1. Drawing adapted from aerial imagery from NSW Governmnet Spatial services Dated 1984

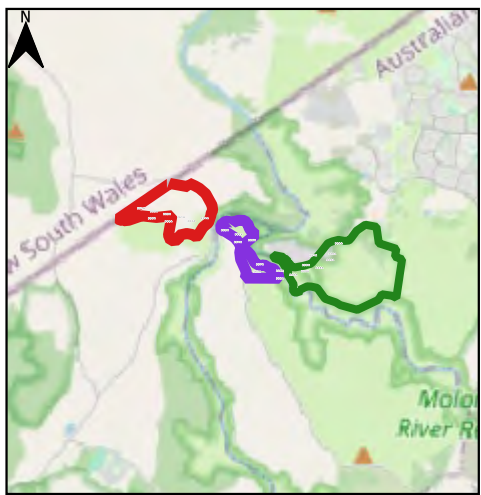
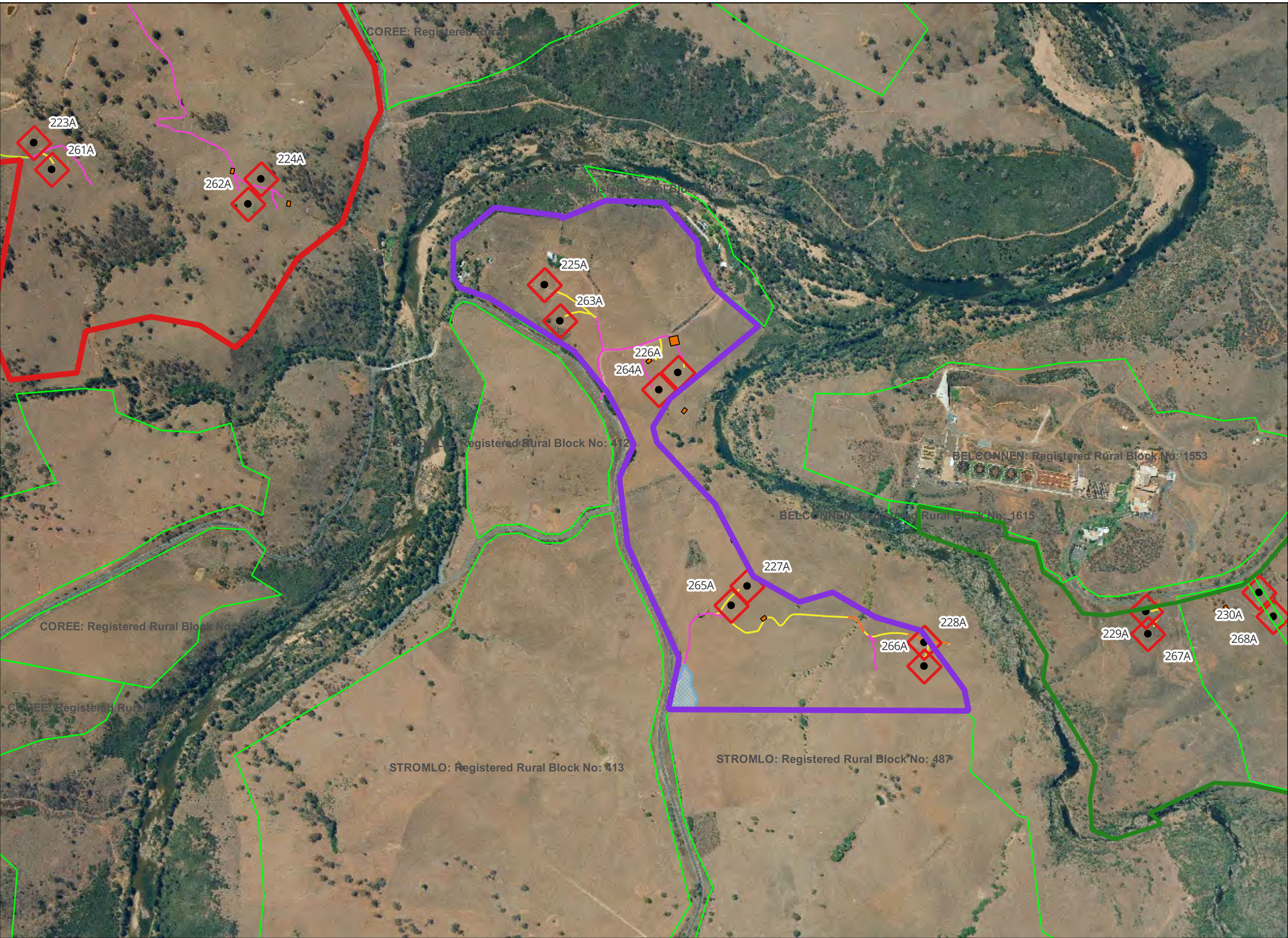


CLIENT: Riverview Projects (ACT) Pty Ltd
OFFICE: Canberra
DRAWN BY: HS
SCALE: 1:10466 @A3
DATE: 17.January.2024

TITLE: **Historical Aerial Imagery - 1984**
Proposed Transmission Line Realignment
Rural Block 487, Stromlo



Project: 225017.00
DRAWING No: D13
REVISION: 1



Site Location

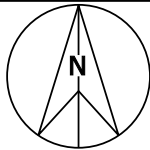
- Legend**
- Approximate Tower Locations
 - Brake and Winch (pull) zones
 - Construction areas
 - Stage 1a existing access tracks
 - New Access Tracks - Sediment control
 - New Access Tracks -No sediment control
 - New Access Tracks - No sediment control - Additional Track (14 Sept 2023)
 - Block Boundaries: Rural Blocks 1602, 1614, 1634, 1635, 1461
 - Block Boundary: Rural Block 487, Stromlo
 - Block Boundary: Rural Block 88, Coree
 - Rural Registered

NOTE:
1. Drawing adapted from aerial imagery from NSW Governmnet Spatial services Dated 1997

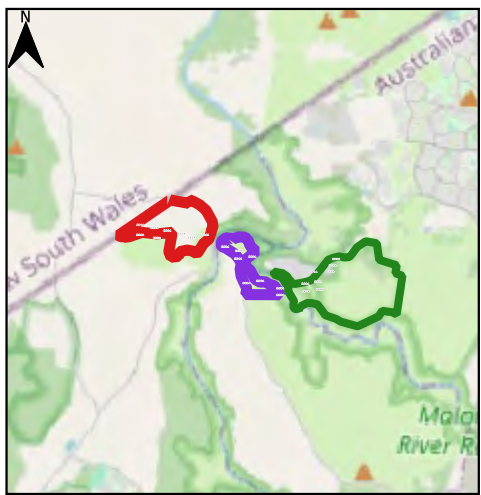
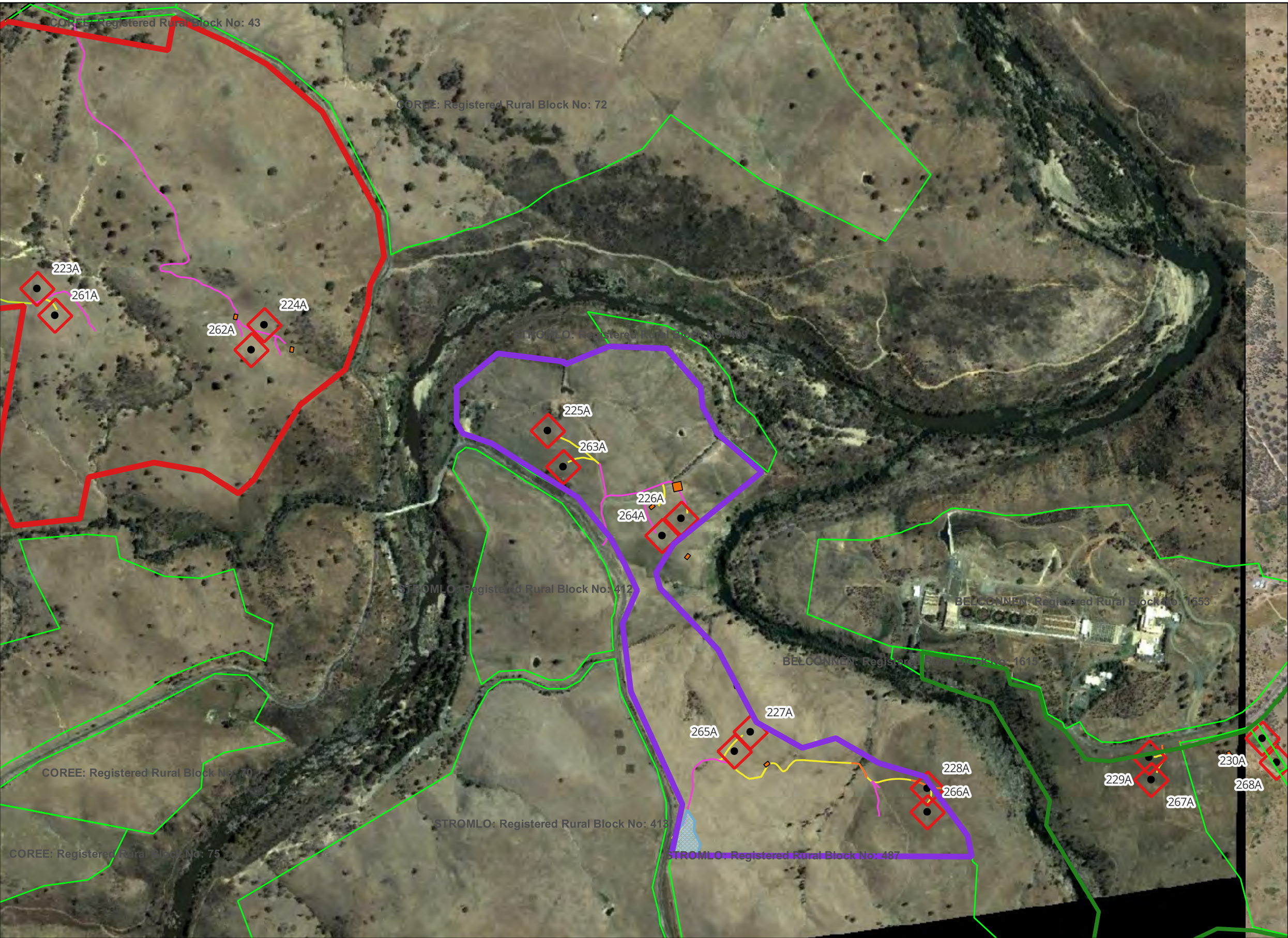


CLIENT: Riverview Projects (ACT) Pty Ltd
OFFICE: Canberra
DRAWN BY: HS
SCALE: 1:10989 @A3
DATE: 17.January.2024

TITLE: **Historical Aerial Imagery - 1997**
Proposed Transmission Line Realignment
Rural Block 487, Stromlo



Project: 225017.00
DRAWING No: D14
REVISION: 1



Site Location

Legend

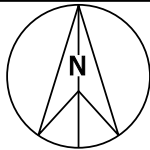
- Approximate Tower Locations
- Construction areas
- Brake and Winch (pull) zones
- Stage 1a existing access tracks
- New Access Tracks - Sediment control
- New Access Tracks -No sediment control
- New Access Tracks - No sediment control
- New Access Tracks - Additional Track (14 Sept 2023)
- Block Boundaries: Rural Blocks 1602, 1614, 1634, 1635, 1461
- Block Boundary: Rural Block 88, Coree
- Block Boundary: Rural Block 487 Stromlo
- Rural Registered

NOTE:
1. Drawing adapted from aerial imagery from Google Earth Images Dated 2004

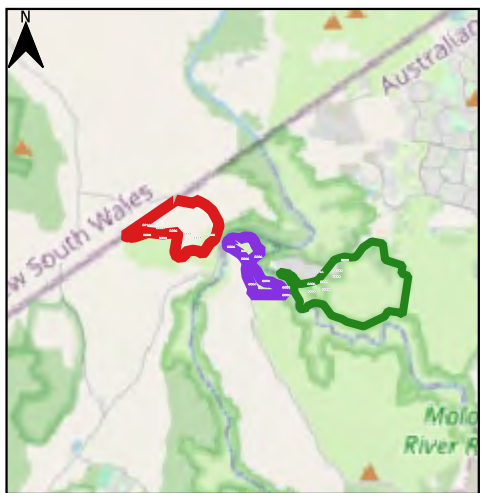
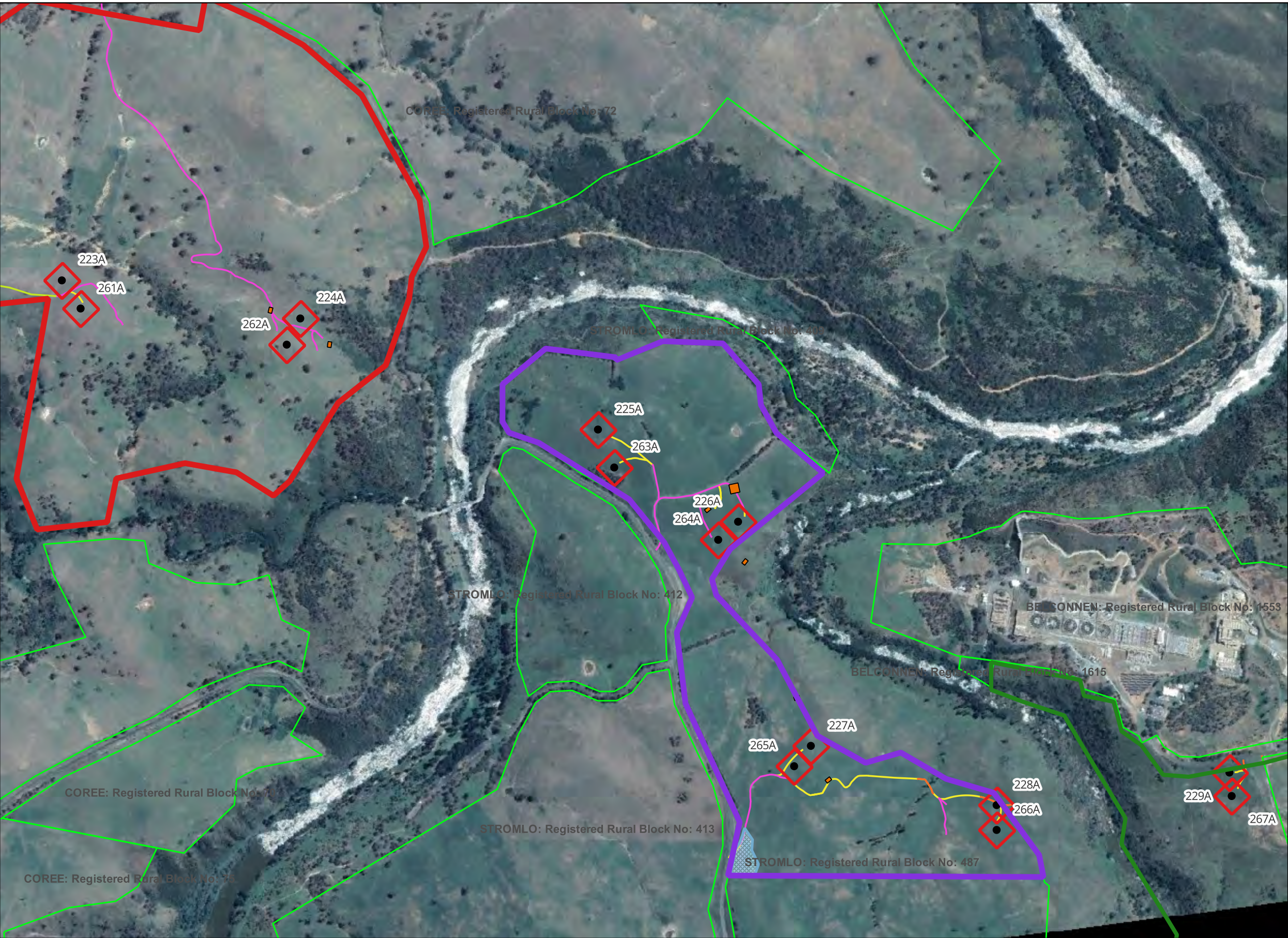


CLIENT:	Riverview Projects (ACT) Pty Ltd	
OFFICE:	Canberra	DRAWN BY: HS
SCALE:	1:10989 @A3	DATE: 17.January.2024

TITLE: **Historical Aerial Imagery -2004**
Proposed Transmission Line Realignment
Rural Block 487, Stromlo



Project:	225017.00
DRAWING No:	D15
REVISION:	1



Site Location

Legend

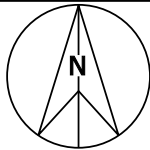
- Approximate Tower Locations
- Brake and Winch (pull) zones
- Construction areas
- Stage 1a existing access tracks
- New Access Tracks - Sediment control
- New Access Tracks -No sediment control
- New Access Tracks - No sediment control - Additional Track (14 Sept 2023)
- Block Boundary: Rural Block 487, Stromlo
- Block Boundary: Rural Block 88, Coree
- Block Boundaries: Rural Blocks 1602, 1614, 1634, 1635, 1461
- Rural Registered

NOTE:
1. Drawing adapted from aerial imagery from Google Earth Images Dated 2019

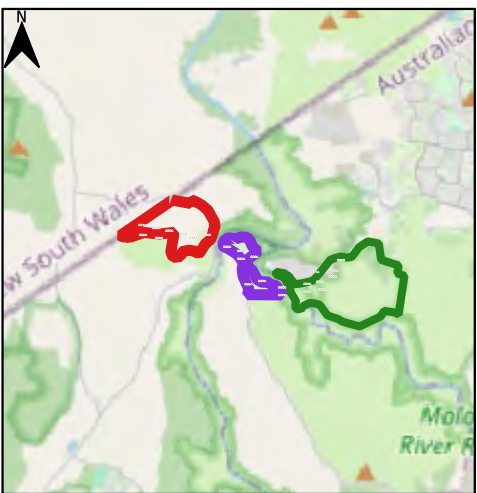


CLIENT: Riverview Projects (ACT) Pty Ltd
OFFICE: Canberra DRAWN BY: HS
SCALE: 1:10466 @A3 DATE: 17.January.2024

TITLE: **Historical Aerial Imagery -2019**
Proposed Transmission Line Realignment
Rural Block 487, Stromlo



Project: 225017.00
DRAWING No: D17
REVISION: 1



Site Location

Legend

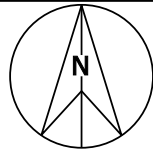
- Approximate Tower Locations
- Brake and Winch (pull) zones
- Construction areas - Laydown v2
- Stage 1a existing access tracks
- New Access Tracks - Sediment control
- New Access Tracks - No sediment control
- New Access Tracks - No sediment control - Additional Track (14 Sept 2023)
- Block Boundary: Rural Block 487, Stromlo
- Block Boundaries: Rural Blocks 1602, 1614, 1634, 1635, 1461
- Block Boundary: Rural Block 88, Coree
- Rural Registered

NOTE:
1. Drawing adapted from aerial imagery from Google Earth Images Dated 2023

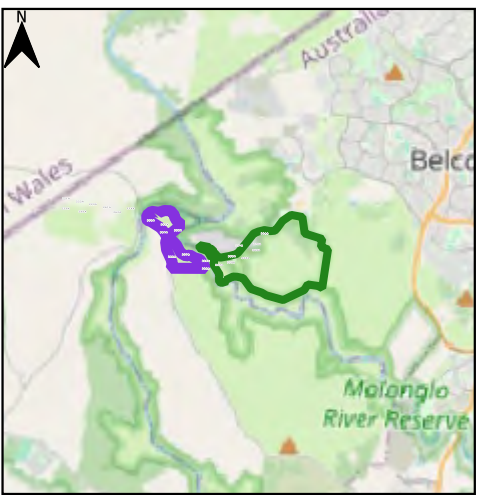
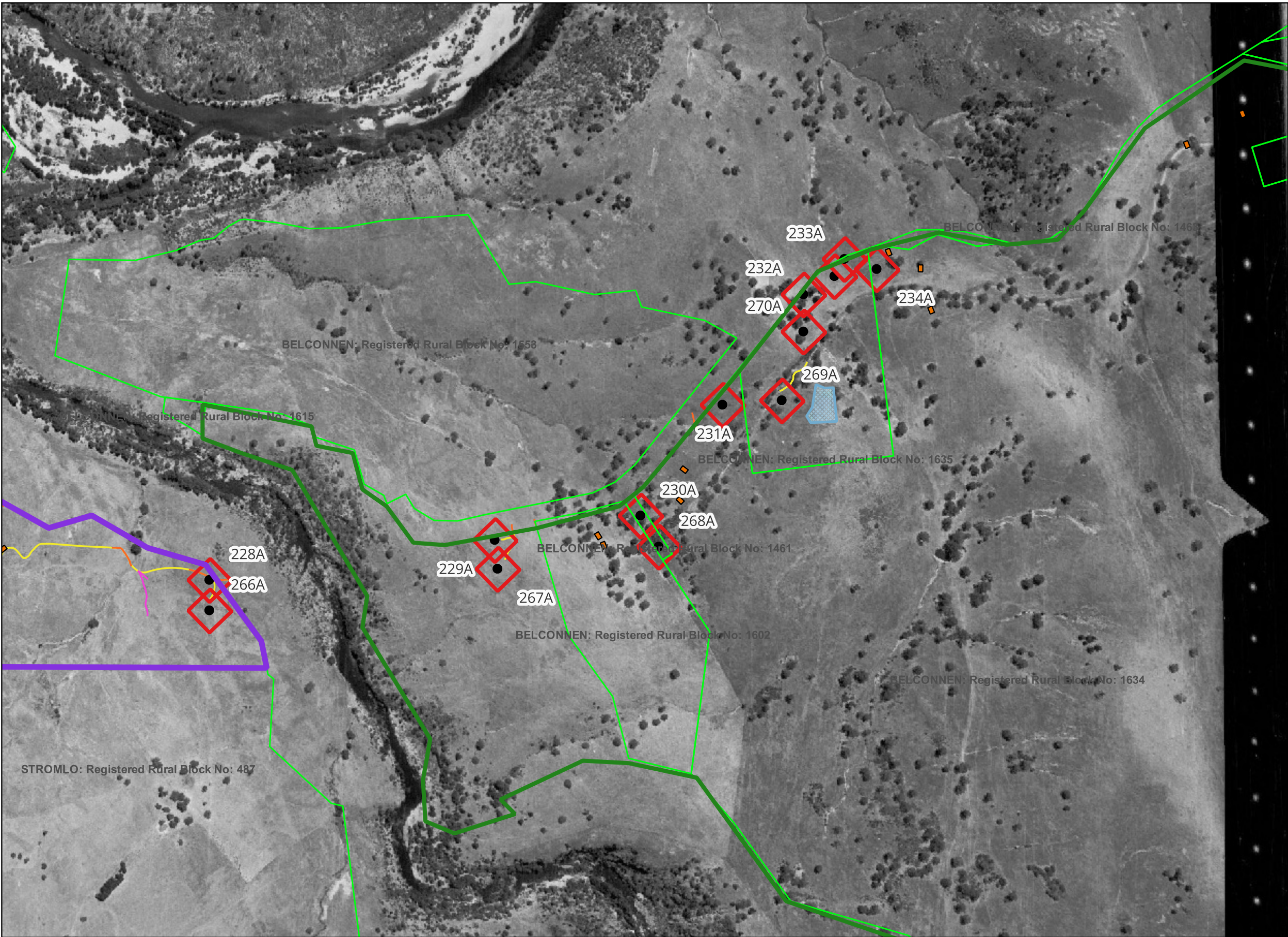


CLIENT: Riverview Projects (ACT) Pty Ltd
OFFICE: Canberra
DRAWN BY: HS
SCALE: 1:10466 @A3
DATE: 17.January.2024

TITLE: **Historical Aerial Imagery -2023**
Proposed Transmission Line Realignment
Rural Block 487, Stromlo



Project: 225017.00
DRAWING No: D18
REVISION: 1



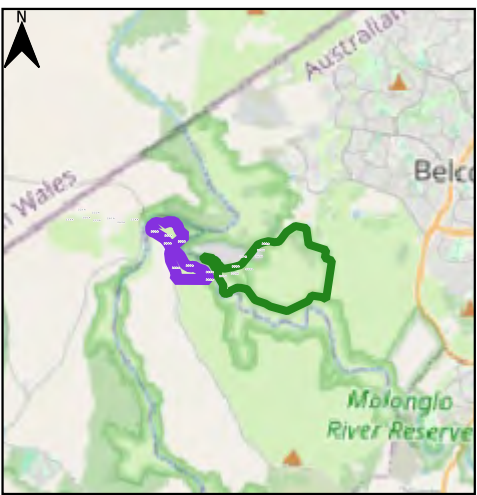
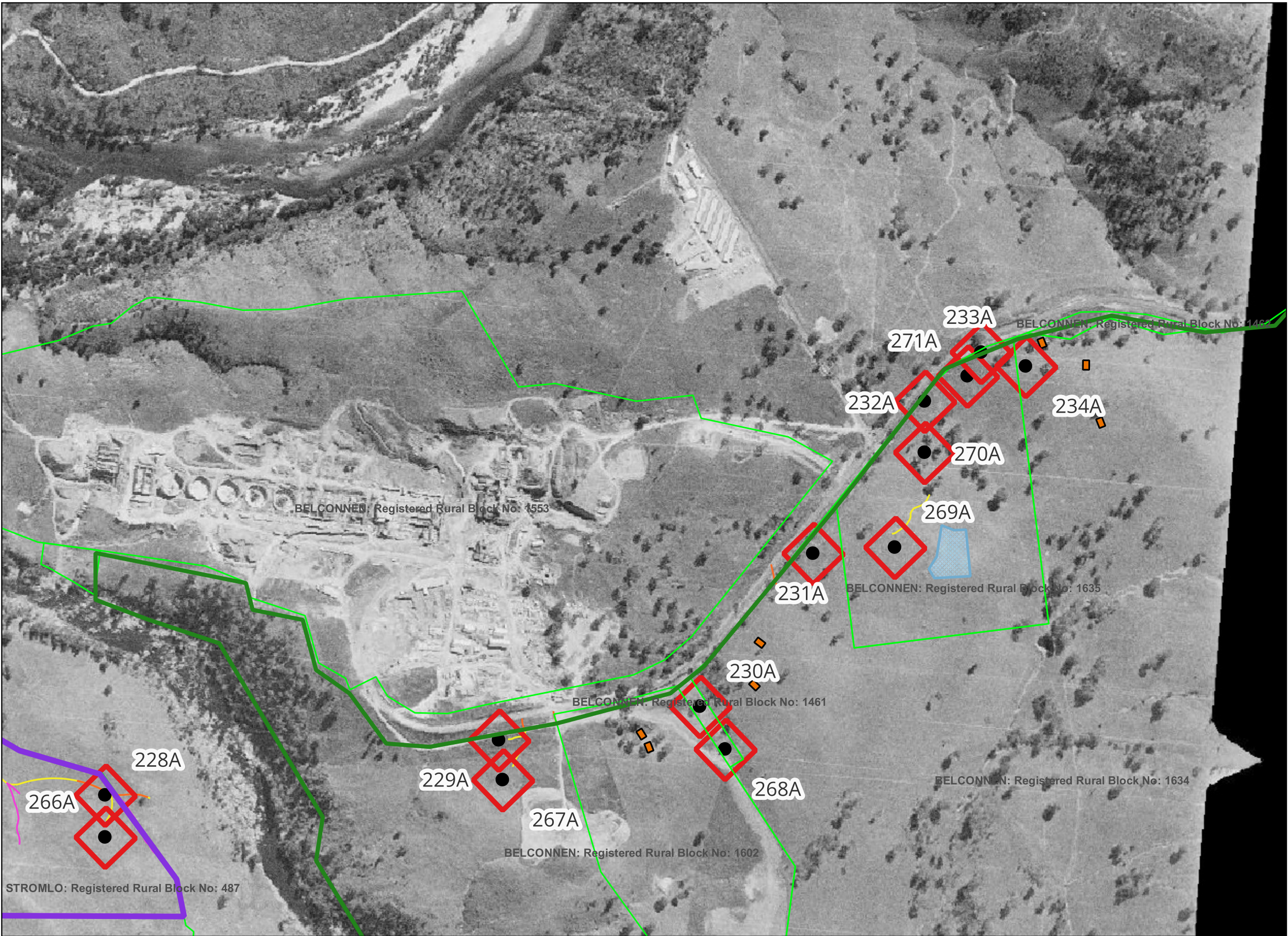
Site Location

- Legend**
- Approximate Tower Locations
 - Brake and Winch (pull) zones
 - Construction areas
 - Block Boundary: Rural Block 487, Stromlo
 - Block Boundaries: Rural Blocks 1602, 1614, 1634, 1635, 1461
 - Rural Registered
 - New Access Tracks - Sediment control
 - New Access Tracks -No sediment control

NOTE:
1. Drawing adapted from aerial imagery from NSW Governmnet Spatial services Dated 1968



	CLIENT: Riverview Projects (ACT) Pty Ltd		TITLE: Historical Aerial Imagery - 1968 Proposed Transmission Line Realignment Rural Blocks 1461,1602,1614,1634,1635,Belconnen		Project: 225017.00
	OFFICE: Canberra	DRAWN BY: HS			DRAWING No: D19
	SCALE: 1:8524 @A3	DATE: 17.January.2024			REVISION: 1



Site Location

Legend

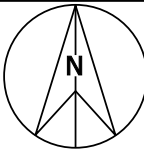
- Approximate Tower Locations
- Construction areas
- Brake and Winch (pull) zones
- Block Boundaries: Rural Blocks 1602, 1614, 1634, 1635, 1461
- Site Boundary Stromlo 487
- Rural Registered
- Stage 1a existing access tracks
- New Access Tracks - Sediment control
- New Access Tracks - No sediment control

NOTE:
1. Drawing adapted from aerial imagery from NSW Government Spatial services Dated 1975

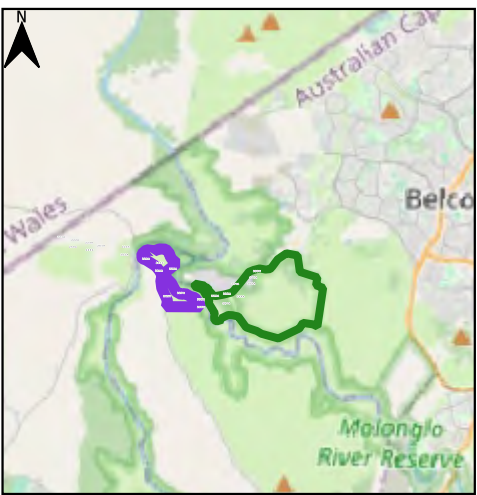


CLIENT:	Riverview Projects (ACT) Pty Ltd	
OFFICE:	Canberra	DRAWN BY: HS
SCALE:	1:6171 @A3	DATE: 17.January.2024

TITLE: **Historical Aerial Imagery - 1975**
Proposed Transmission Line Realignment
Rural Blocks 1461,1602,1614,1634,1635,Belconnen



Project:	225017.00
DRAWING No:	D20
REVISION:	1



Site Location

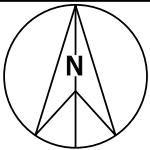
- Legend**
- Approximate Tower Locations
 - Brake and Winch (pull) zones
 - Construction areas
 - Block Boundary: Rural Block 487, Stromlo
 - Rural Registered
 - Block Boundaries: Rural Blocks 1602, 1614, 1634, 1635, 1461
 - New Access Tracks - Sediment control
 - New Access Tracks -No sediment control

NOTE:
1. Drawing adapted from aerial imagery from NSW Government Spatial services Dated 1984

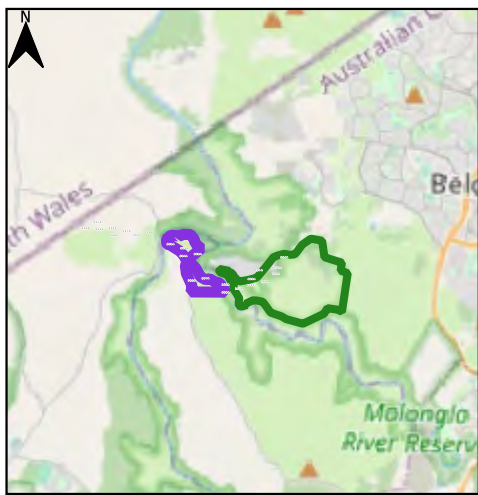
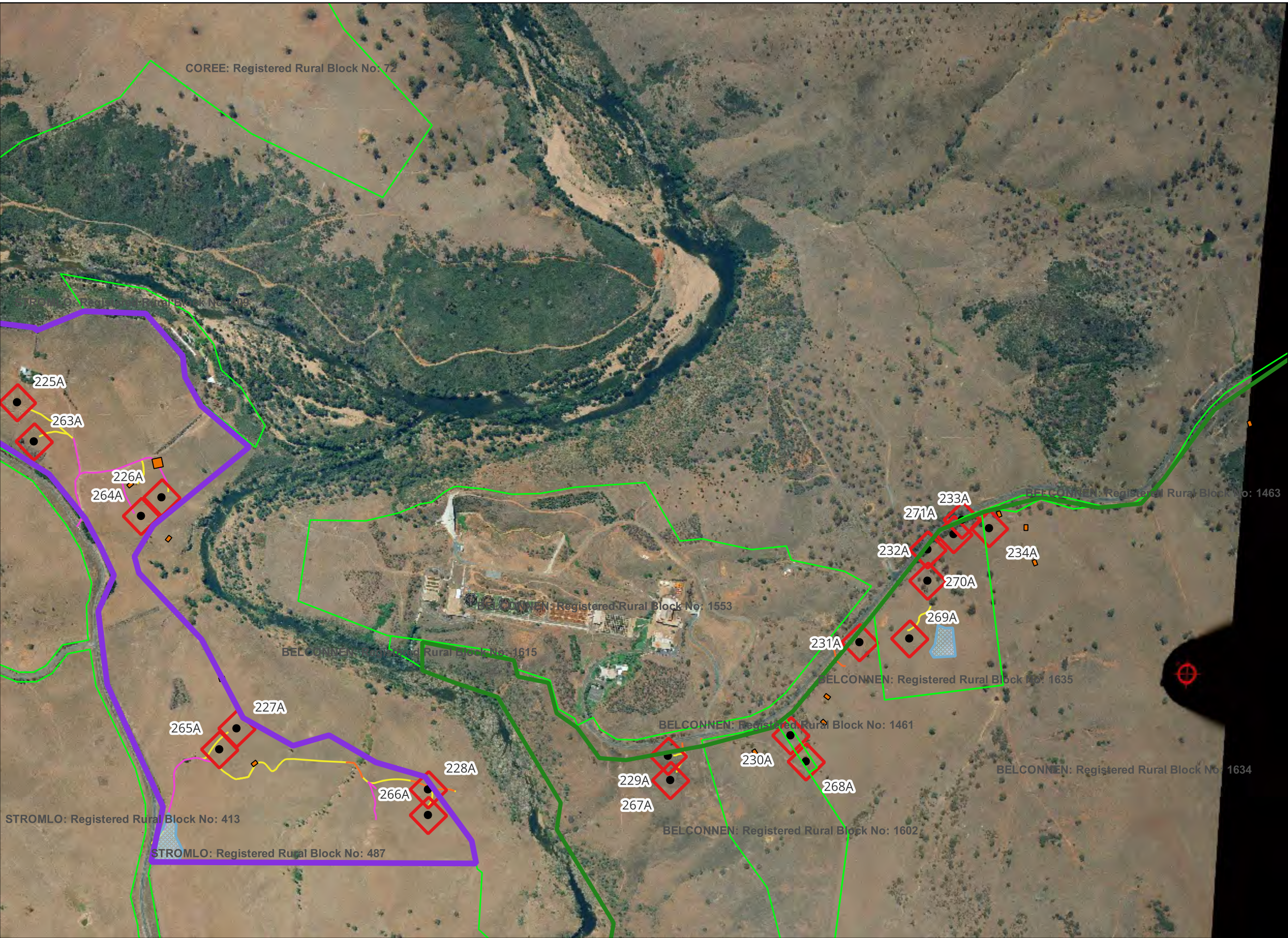


CLIENT: Riverview Projects (ACT) Pty Ltd
OFFICE: Canberra DRAWN BY: HS
SCALE: 1:12342 @A3 DATE: 17.January.2024

TITLE: **Historical Aerial Imagery - 1984**
Proposed Transmission Line Realignment
Rural Blocks 1461,1602,1614,1634,1635,Belconnen



Project: 225017.00
DRAWING No: D21
REVISION: 1



Site Location

- Legend**
- Approximate Tower Locations
 - Brake and Winch (pull) zones
 - Construction areas - Laydown v2
 - Block Boundary: Rural Block 487, Stromlo
 - Block Boundaries: Rural Blocks 1602, 1614, 1634, 1635, 1461
 - Rural Registered
 - New Access Tracks - Sediment control
 - New Access Tracks - No sediment control

NOTE:
1. Drawing adapted from aerial imagery from NSW Government Spatial services Dated 1997

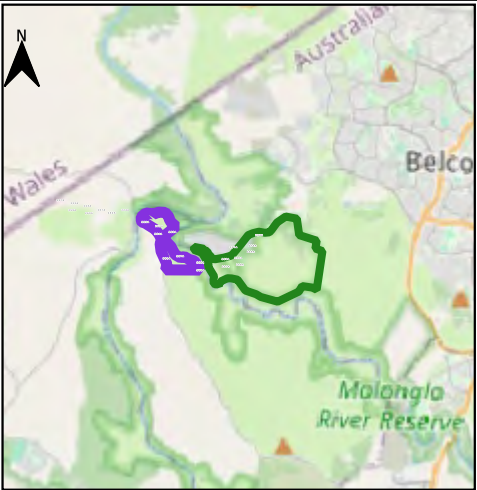
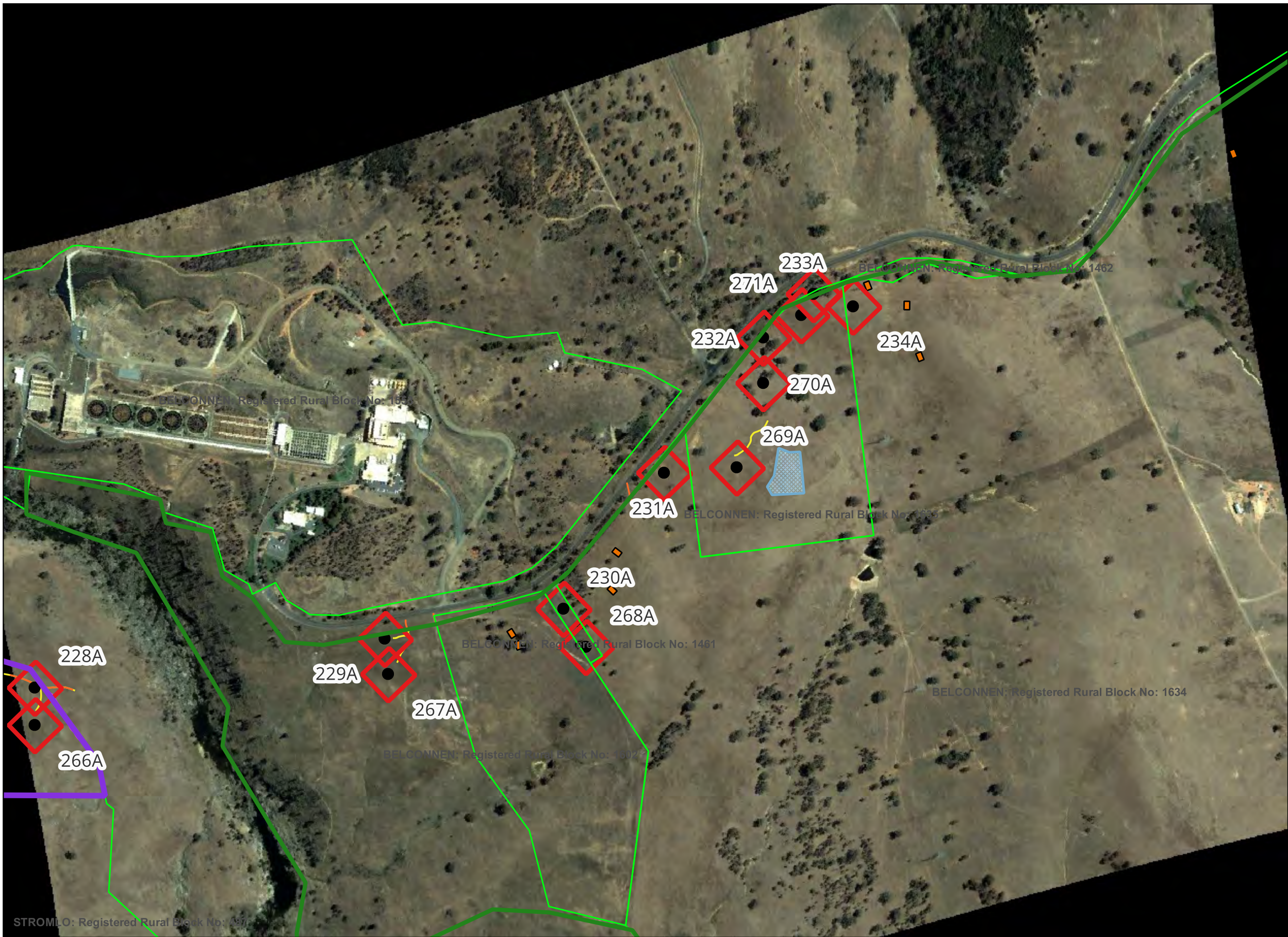


CLIENT: Riverview Projects (ACT) Pty Ltd
OFFICE: Canberra
DRAWN BY: HS
SCALE: 1:10154 @A3
DATE: 17.January.2024

TITLE: **Historical Aerial Imagery - 1997**
Proposed Transmission Line Realignment
Rural Blocks 1461,1602,1614,1634,1635,Belconnen



Project: 225017.00
DRAWING No: D22
REVISION: 1



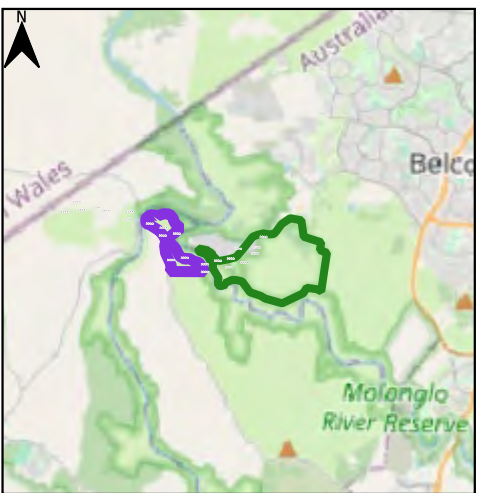
Site Location

- Legend
- Approximate Tower Locations
 - Brake and Winch (pull) zones
 - Construction areas
 - Block Boundary: Rural Block 487, Stromlo
 - Block Boundaries: Rural Blocks 1602, 1614, 1634, 1635, 1461
 - Rural Registered
 - New Access Tracks - Sediment control
 - New Access Tracks -No sediment control

NOTE:
1. Drawing adapted from aerial imagery from Google Earth 2004



	CLIENT: Riverview Projects (ACT) Pty Ltd		TITLE: Historical Aerial Imagery - 2004 Proposed Transmission Line Realignment Rural Blocks 1461,1602,1614,1634,1635,Belconnen		Project: 225017.00
	OFFICE: Canberra	DRAWN BY: HS			DRAWING No: D23
	SCALE: 1:6942 @A3	DATE: 17.January.2024			REVISION: 1



Site Location

- Legend**
- Approximate Tower Locations
 - Brake and Winch (pull) zones
 - Construction areas - Laydown v2
 - Block Boundaries: Rural Blocks 1602, 1614, 1634, 1635, 1461
 - Block Boundary: Rural Block 487, Stromlo
 - Rural Registered
 - New Access Tracks -No sediment control
 - New Access Tracks - Sediment control

NOTE:
1. Drawing adapted from aerial imagery from Google Earth 2014

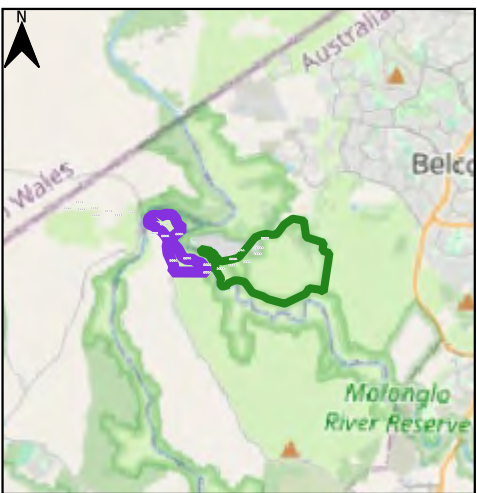


CLIENT: Riverview Projects (ACT) Pty Ltd
OFFICE: Canberra
DRAWN BY: HS
SCALE: 1:5997 @A3
DATE: 17.January.2024

TITLE: **Historical Aerial Imagery - 2014**
Proposed Transmission Line Realignment
Rural Blocks 1461,1602,1614,1634,1635,Belconnen



Project: 225017.00
DRAWING No: D24
REVISION: 1



Site Location

- Legend
- Approximate Tower Locations
 - Brake and Winch (pull) zones
 - Construction areas - Laydown v2
 - Block Boundaries:
Rural Blocks 1602, 1614, 1634, 1635, 1461
 - Rural Registered
 - Block Boundary: Rural Block 487, Stromlo
 - New Access Tracks
-No sediment control
 - New Access Tracks
- Sedement control

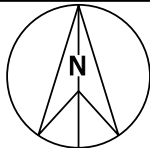
NOTE:
1. Drawing adapted from aerial imagery from Google Earth 2019



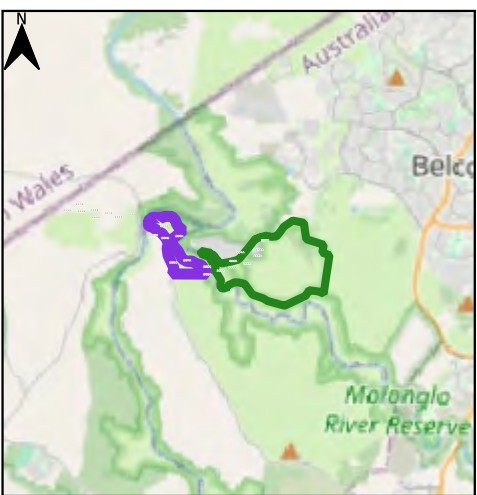
CLIENT: Riverview Projects (ACT) Pty Ltd
OFFICE: Canberra
SCALE: 1:5711 @A3

DRAWN BY: HS
DATE: 17.January.2024

TITLE: **Historical Aerial Imagery - 2019**
Proposed Transmission Line Realignment
Rural Blocks 1461,1602,1614,1634,1635,Belconnen



Project: 225017.00
DRAWING No: D25
REVISION: 1



Site Location

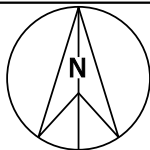
- Legend**
- Approximate Tower Locations
 - Brake and Winch (pull) zones
 - New Access Tracks - Sediment control
 - New Access Tracks -No sediment control
 - ACT Border
 - Construction areas - Laydown v2
 - Block Boundaries: Rural Blocks 1602, 1614, 1634, 1635, 1461
 - Rural Registered
 - Block Boundary: Rural Block 487, Stromlo

NOTE:
1. Drawing adapted from aerial imagery from Google Earth 2023



CLIENT:	Riverview Projects (ACT) Pty Ltd	
OFFICE:	Canberra	DRAWN BY: HS
SCALE:	1:5711 @A3	DATE: 17.January.2024

TITLE: **Historical Aerial Imagery - 2023**
Proposed Transmission Line Realignment
Rural Blocks 1461,1602,1614,1634,1635,Belconnen



Project:	225017.00
DRAWING No:	D26
REVISION:	1

Appendix E

Site Photographs



Photo 1: View of proposed tower 221A location, looking east



Photo 2: View of proposed tower 259A location, looking east



Site Photographs		PROJECT:	225017
Coree, Stromlo and		Plate	1
Belconnen		REV:	A
Client	Riverview Projects (ACT) Pty Ltd	DATE:	22-Nov-23



Photo 3: View of proposed tower location 222A, looking east



Photo 4: View of proposed tower location 259A, looking south



Site Photographs		PROJECT:	225017
Coree, Stromlo and		Plate	2
Belconnen		REV:	A
Client	Riverview Projects (ACT) Pty Ltd	DATE:	22-Nov-23



Photo 5: View of proposed tower 223A location, looking south



Photo 6: View of proposed tower 261A location, looking north



Site Photographs

**Coree, Stromlo and
Belconnen**

Client Riverview Projects (ACT) Pty
Ltd

PROJECT: 225017

Plate 3

REV: A

DATE: 22-Nov-23



Photo 7: View of proposed tower 224A location, looking east



Photo 8: View of proposed tower 262A location, looking south-west



Site Photographs

**Coree, Stromlo and
Belconnen**

Client Riverview Projects (ACT) Pty
Ltd

PROJECT: 225017

Plate 4

REV: A

DATE: 22-Nov-23



Photo 9: View of proposed tower 225A location, looking south-east



Photo 10: View of proposed tower 263A location, looking south

	Site Photographs		PROJECT:	225017
	Coree, Stromlo and		Plate	5
	Belconnen		REV:	A
	Client	Riverview Projects (ACT) Pty Ltd	DATE:	22-Nov-23



Photo 11: View of proposed tower 226A location, looking north-east



Photo 12: View of proposed tower 264A location, looking south



Site Photographs		PROJECT:	225017
Coree, Stromlo and		Plate	6
Belconnen		REV:	A
Client	Riverview Projects (ACT) Pty Ltd	DATE:	22-Nov-23



Photo 13: View of proposed tower 227A location, looking east



Photo 14: View of proposed tower 265A location, looking east



Site Photographs

**Coree, Stromlo and
Belconnen**

Client Riverview Projects (ACT) Pty
Ltd

PROJECT: 225017

Plate 7

REV: A

DATE: 22-Nov-23



Photo 15: View of proposed tower 228A location, looking north-west



Photo 16: View of proposed tower 266A location, looking south-west

	Site Photographs		PROJECT:	225017
	Coree, Stromlo and		Plate	8
	Belconnen		REV:	A
	Client	Riverview Projects (ACT) Pty Ltd	DATE:	22-Nov-23



Photo 17: View of proposed tower 229A location, looking north



Photo 18: View of proposed tower 267A location, looking west



Site Photographs

**Coree, Stromlo and
Belconnen**

Client Riverview Projects (ACT) Pty
Ltd

PROJECT: 225017

Plate 9

REV: A

DATE: 22-Nov-23



Photo 19: View of bricks (possible fly-tipping) at proposed tower location 267A



Photo 20: View of proposed tower 230A location, looking north-west



Site Photographs		PROJECT:	225017
Coree, Stromlo and		Plate	10
Belconnen		REV:	A
Client	Riverview Projects (ACT) Pty Ltd	DATE:	22-Nov-23



Photo 21: View of the possible fill mound within the location of proposed tower location 230A



Photo 22: View of proposed tower 268A location, looking west



Site Photographs		PROJECT:	225017
Coree, Stromlo and		Plate	11
Belconnen		REV:	A
Client	Riverview Projects (ACT) Pty Ltd	DATE:	22-Nov-23



Photo 23: View of proposed tower 231A location, looking north-west



Photo 24: View of proposed tower 269A location, looking north-east

	Site Photographs		PROJECT:	225017
	Coree, Stromlo and		Plate	12
	Belconnen		REV:	A
	Client	Riverview Projects (ACT) Pty Ltd	DATE:	22-Nov-23



Photo 25: View of proposed tower 232A location, looking south-west

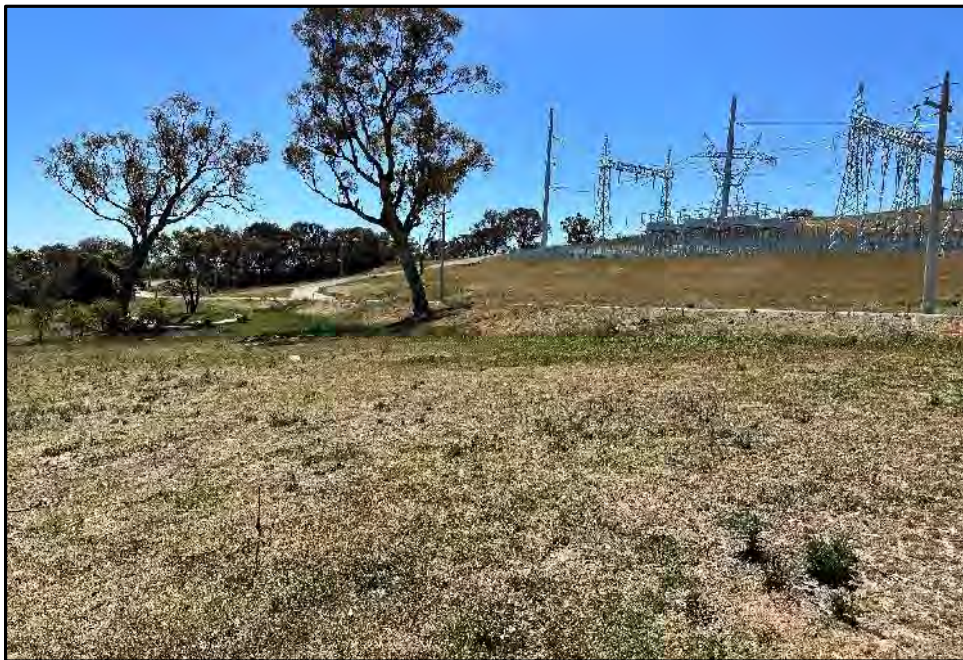


Photo 26: View of proposed tower 270A location, looking north-east



Site Photographs

Coree, Stromlo and
Belconnen

Client Riverview Projects (ACT) Pty
Ltd

PROJECT: 225017

Plate 13

REV: A

DATE: 22-Nov-23



Photo 27: View of proposed tower 233A location, looking north-west



Photo 28: View of proposed tower 271A location, looking south



Site Photographs

**Coree, Stromlo and
Belconnen**

Client Riverview Projects (ACT) Pty
Ltd

PROJECT: 225017

Plate 14

REV: A

DATE: 22-Nov-23



Photo 29: View of proposed tower 234A location, looking east

	Site Photographs		PROJECT:	225017
	Coree, Stromlo and		Plate	15
	Belconnen		REV:	A
	Client	Riverview Projects (ACT) Pty Ltd	DATE:	22-Nov-23