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Report on
Preliminary Site Investigation

Proposed Residential Development
Lot 1 DP 798111, Bungendore

Prepared for
Queanbeyan-Palerang Council

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

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Executive Summary

This draft report presents the results of a preliminary site investigation (PSI) undertaken for a proposed residential development at Lot 1 DP 798111, Bungendore (the site). The investigation was commissioned in an email dated 17 July 2016 by Ms Sue Robb of the Queanbeyan-Palerang Council and was undertaken in accordance with Douglas Partners' proposal CAN160053 dated 24 March 2016. This PSI will support the Planning Proposal for the proposed development of the site as a residential estate (i.e. a low density residential land use).

The objectives of the PSI were to:

- Assess the potential for contamination at the site based on past and present site uses;
- Identify potential areas of environmental concern (PAEC);
- Determine the contaminants of concern; and
- Comment on the need for further investigation and/or management (if required) in order to determine the compatibility of the site for the proposed development of the site as a residential estate (i.e. a low density residential land use).

This PSI comprised a review of historical information and a site walkover to identify potential sources of contamination.

This investigation has been undertaken generally accordance with the guidance provided in the following for PSIs; *Guidelines for Consultants Reporting on Contaminated Sites*, NSW Office of Environment and Heritage, August 2011; the *State Environmental Planning Policy No 55 – Remediation of Land*, NSW Environment and Planning, July 2004; and *Section 117 Directions – Environment Planning and Assessment Act 1979*.

The site comprises an irregular shaped area, approximately 82 hectares, of arable farmland. A locked shed, two animal shelters and a separate toilet are noted in the south western portion of the site near to the entrance off Tarago Road. Mature trees are visible around the structures and along the western, southern and part of the northern boundary of the site. Four dams are located on the site with three creeks entering the site generally in a north to south orientation, two of these creeks pass through dams. A fourth creek line crosses through the site in the north eastern corner.

The site history review indicated that the site has been and is currently arable farmland used for grazing. An area of the south western portion of the site was disturbed between 1976 and 1985 with the disturbance still slightly visible in the 1992 aerial photograph.

Three buildings were constructed between 1985 and 1992 likely used for the running of the farm. Two of these buildings were then demolished and a small building constructed north of the remaining original building between 1992 and 2002. It is noted that asbestos is unlikely to be present within the former and current buildings as they were constructed after 1980. Entrance driveways were visible to the buildings in the 1992 and 2002 aerial photographs with an area of disturbed ground noted adjacent to one of the entrance driveways in 1992. A dirt track crossed through the western portion of the site in a north to south orientation in the 1992 aerial photograph. The Bungendore Landfill Facility was noted to the north of the site between 1967 and 2002, however, the URS (2014) report indicated that it had been operating as a 'garbage depot' since at least 1905. The landfill is currently partially open and is going through a closure process.

The site walkover confirmed that the site is currently arable farmland. Four dams are located on the site with three creeks entering the site generally in a north to south orientation, two of these creeks pass through dams. A fourth creek line crosses through the site in the north eastern corner. The south western portion of the site includes a locked shed, two animal shelters and a separate toilet with a hole dug in the ground to collect the waste. The interview with the owner Mr Alex Brinkmeyer noted that the toilet did not have a separate constructed concrete septic tank. An embankment was noted along the northern boundary with the landfill and a small area of disturbed ground was noted in the south western portion of the site. Mr Brinkmeyer had no knowledge of any filling within gully lines or similar across the site.

The locked shed was constructed on a concrete hardstand surface and therefore any minor storage of chemical such as pesticides, herbicides, insecticides or fuel would be unlikely to migrate into the surrounding environment. However, the shed would need to be accessed to determine the extent of any storage. It is also noted that the Queanbeyan-Palerang Council and Mr Brinkmeyer indicated that weed control has been undertaken across the site annually. Mr Brinkmeyer noted that there was no storage of chemicals or fuel at the site and there had not been a sheep or cattle dip at the site.

Scattered rubbish, mostly pieces of plastic and cardboard such as food wrappers, bags and boxes, were noted particularly near to the landfill to the north of the site. Three old 200 L fuel drums and an old 20 L kerosene drum were noted within the site, however, were empty and disused.

The Bungendore Landfill Facility has been subject to assessment and monitoring as part of the planned closure. The environmental monitoring assessment by ENRS (2015) considered that the landfill was suitably contained and recommended continued monitoring. Groundwater has also been noted by URS (2014) to flow to the north from the landfill, away from the current site. DP would consider the recommendations of ENRS for the on-going monitoring of the landfills impacts on the surrounding area to be sufficient at this point in time. Should any information become available that the landfill has an unacceptable impact on the current site this would need to be reviewed and possible additional investigation undertaken on the boundary of the landfill with the site. DP would recommend confirmation be sought that the landfill is not considered to be impacting the current site and that the 250 m buffer applied for any proposed development is appropriate.

Based on observations made during the site history review and site walkover the main sources of potential contamination are considered to be:

- Potential impacts from agricultural land use including weed control. Potential contaminants associated with agricultural use are: metals: arsenic (As), cadmium (Cd), chromium (Cr), copper (Cu), lead (Pb), mercury (Hg), nickel (Ni), zinc (Zn); organochloride pesticides (OCP), organophosphate pesticides (OPP) and herbicides.
- Potential impacts from filling associated with the historical buildings, disturbed ground (historical), dirt tracks (historical and observed). Potential contaminants associated with fill from unknown and contaminated sources are: metals; total recoverable hydrocarbons (TRH); benzene, toluene, ethylbenzene, xylene (BTEX); polycyclic aromatic hydrocarbons (PAH); polychlorinated biphenyls (PCB); OCP; OPP; phenols and asbestos.
- Potential impacts from the separate toilet with a hole dug in the ground. Potential contaminants associated with holes dug in the ground for waste from a toilet are: e.coli, faecal coliforms and salmonella.

- Potential impacts from the offsite landfill. Potential contaminants associated with a landfill are: landfill gas and leachate.

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

The results of the draft PSI indicate that the site is generally suitable for the intended residential land use subject to an intrusive subsurface investigation to determine the extent (if any) of potential contamination at the site. Specifically soil sampling across the site targeting the agricultural land use including weed control, the unknown filling and the hole dug in the ground for waste from a toilet.

In regards to the scattered rubbish across the site, there is unlikely to be any impacts to the site considering the inert pieces identified however there is an aesthetic impact. Therefore we would recommend that a more secure barrier be placed between the landfill and the site to minimise the rubbish migrating into the site. The rubbish could also periodically be collected by hand across the site and should be done just prior to site preparation and earthworks commencing for the development.

We would also recommend that the locked shed be accessed to determine if there is any storage of chemicals or fuel, and as noted above in Section 9, on-going monitoring of the Bungendore Landfill Facility to the north of the site should be undertaken. Confirmation should be sought that the landfill is not considered to be impacting the current site and that the 250 m buffer applied for any proposed development is appropriate. Further investigation may be required if this cannot be confirmed.

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Report on Preliminary Site Investigation

Proposed Residential Development

Lot 1 DP 798111, Bungendore

1. Introduction

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The objectives of the PSI were to:

- Assess the potential for contamination at the site based on past and present site uses;
- Identify potential areas of environmental concern (PAEC);
- Determine the contaminants of concern; and
- Comment on the need for further investigation and/or management (if required) in order to determine the compatibility of the site for the proposed development of the site as a residential estate (i.e. a low density residential land use).

This PSI comprised a review of historical information and a site walkover to identify potential sources of contamination.

This report must be read in conjunction with the notes *About this Report* which are included in Appendix A.

2. Guidelines and Legislation

This investigation has been undertaken generally accordance with the guidance provided in the following for PSIs; *Guidelines for Consultants Reporting on Contaminated Sites*, NSW Office of Environment and Heritage, August 2011; the *State Environmental Planning Policy No 55 – Remediation of Land*, NSW Environment and Planning, July 2004; and *Section 117 Directions – Environment Planning and Assessment Act 1979*.

The most relevant sections outline the different stages of investigation/remediation at sites. This PSI is the first stage which should identify all past and present potentially contaminating activities, identify potential contamination types, discuss the site condition, provide a preliminary assessment of site contamination, and assess the need for further investigations.

3. Scope of Work

The following scope of work was conducted for the investigation:

- A desktop study of available maps and plans;
- Review of site history information incorporating:
 - o A search of the Contaminated Land Register for notices issued under the CLM Act;
 - o A search of the dangerous good database held by WorkCover NSW;
 - o Review of existing reports including the section 149 planning certificate;
 - o Review of historical land titles with respect to the Deposited Plan to identify previous site owners; and
 - o A review of selected historical aerial photography archived with the NSW Land and Property Information.
- Site walkover by an environmental engineer; and
- Preparation of this report presenting the findings of the PSI, identification of potential sources of contamination, and an assessment of the need for further investigations and/or management.

4. Site Identification and Description

4.1 Site Identification

The site identification information is summarised as follows:

Table 1: Site Identification Details

Item	Details
Site Owner	Elmslea Land Developments Pty Ltd
Site Address	174 Tarago Road, Bungendore
Current land use	Arable farmland
Lot and Deposited Plan (see Drawing 1, Appendix B)	Lot 1 DP 798111
Palerang Local Environmental Plan 2014	RU1: Primary Production
Council	Queanbeyan-Palerang City Council
Approximate Site Area	82 hectares
Proposed future land-use	Low density residential

4.2 Site Layout and Description

The general layout of the site is provided on Drawing 1, Appendix B. The site comprises an irregular shaped area of arable farmland. A locked shed, two animal shelters and a separate toilet are noted in

the south western portion of the site near to the entrance off Tarago Road. Mature trees are visible around the structures and along the western, southern and part of the northern boundary of the site. Four dams are located on the site with three creeks entering the site generally in a north to south orientation, two of these creeks pass through dams. A fourth creek line crosses through the site in the north eastern corner.

A local topographic high point is located immediately to the north of the central portion of the site. The site slopes generally to the south west, and to the west in the western portion of the site, from 750 mAHD to 700 mAHD.

The site is bounded by Tarago Road to the west, residential properties to the south, a railway line to the east, and a municipal landfill (Bungendore Landfill Facility)/waste transfer centre and arable farmland to the north. The surrounding land uses are residential to the south, and arable farmland to the north, west and east. DP understands that the Bungendore Landfill Facility currently remains partially open.

5. Regional Soils, Geology and Hydrogeology

5.1 Regional Soils

Reference to the 1:100 000 Canberra Soil Landscape Series Sheet 8727 (Ref 1) indicates that the eastern portion of the site is mapped as being on the Bywong Soil Group. The Bywong Soil Group is characterised by rolling to undulated low hills, rises and minor flats on metasediments. Soils are shallow, well to rapidly drained rudosols (lithosols) on crests and upper slopes, and new rock outcrop, moderately deep, moderately well-drained red chromosols (red podzolic soils) and brown chromosols (yellow podzolic soils and non-calci brown soils) on midslopes, and deep imperfectly drained bleached sodic chromosols (yellow podzolic soils) and poorly drained sodosols (solodic soils) on lower slopes. This soil group is limited by its infertile, erodible and shallow soils. There are water erosion and salinity hazards.

The western portion of the site is underlain by three different soil groups. The westernmost part of the site is on the Coopers Soil Group. The Coopers Soil Group is characterised by old lake beaches, dunes and sand sheet on Quaternary alluvium. Generally no rock outcrops within this soil group. Soils are deep to very deep, very poorly drained hydrosols and stratic rudosols (alluvial soils) on Lake George, moderately to very deep, imperfectly drained brown chromosols (yellow podzolic soils) on old beaches, well-drained stratic rudosols (siliceous sands) on beach dunes, and moderately deep to very deep, poorly drained stratic rudosols (alluvial soils) on swales. This soil group is limited by its non-cohesive, infertile and highly erodible soils with low available waterholding capacity. Other limitations include groundwater pollution, engineering hazard and poor moisture availability.

The next group to east of the Coopers Soil Group is mapped as being the Bungendore Soil Group. The Bungendore Soil Group is characterised by low footslopes on Quaternary alluvium and colluvium. Soils are moderately deep, imperfectly drained mottled yellow chromosols on upper footslopes, and deep, poorly drained sodosols (solodic soils) on lower footslopes. This soil group is limited by its poorly drained, dispersible, hardsetting and highly erodible soils. The third group is also Coopers Soil Group however is a slight variant with heavier textured soils.

5.2 Regional Geology

Reference to the Canberra 1:100 000 Geology of Canberra Geological Series Sheet (Ref 2) indicates that the eastern portion of the site is underlain by Birkenburn beds of Middle-Late Ordovician age. The Birkenburn beds typically comprise interbedded sandstone, siltstone and shale.

The western portion of the site is underlain by three different types of unnamed groups of Quaternary age. The westernmost group typically comprises alluvium of gravels, sand, silty clay and black organic clay. The next group to the east of the alluvium typically comprises colluvium of fanglomerate and poorly cemented conglomerate, gravel and sand. The third group typically comprises strandlines of coarse sand and gravel.

5.3 Hydrogeology

The nearest surface water receptors are the four dams and four creek lines located within the site. The nearest main offsite surface water receptor is a tributary of Turallo Creek located approximately 100 m to the east of the site. It is considered likely the groundwater would flow towards to the south west, conforming with the topographic slope, towards Turallo Creek.

5.4 Groundwater Bore Search

A search of the groundwater bore database was conducted through the NSW Department of Primary Industries - Water. Based on the database, there are approximately 29 groundwater abstraction bores registered within a 1 kilometre radial search area of the site. Further information was available through the database for 28 of the 29 bores as follows:

Table 2: Groundwater Bores

Groundwater Bore Number	Distance to site (m)	Private/Public	Groundwater Usage	Depth (m)	Depth to standing water level (m)
GW402589	50 S	Unknown	Domestic	54	11
GW402475	190 S	Unknown	Domestic	18	9.1
GW030707	210 SW	Public	Stock	22	3.3
GW416178	230 N	Private	Monitoring bore	16.5	10.3
GW414771	280 SW	Private	Domestic	8	Unknown
GW030708	350 SW	Public	Stock	24.5	7.4
GW416189	390 SW	Private	Stock, Domestic, Irrigation	36	10
GW404636	420 SW	Private	Domestic	26	3

GW030816	480 SW	Public	Groundwater exploration	55*	Unknown
GW030709	570 SW	Public	Stock	42	5
GW401590	600 S	Unknown	Town water supply	115	Unknown
GW401591	600 S	Unknown	Town water supply	72	7
GW030705	670 NW	Public	Stock	23	1.4
GW400885	690 W	Unknown	Stock, Domestic	26	8.2
GW030823	720 W	Public	Groundwater exploration	35.20*	Unknown
GW025428	790 S	Private	Stock, Domestic	10.10	Unknown
GW416038	800 W	Private	Stock, Domestic	42	16
GW402817	810 SW	Unknown	Domestic	90	15
GW416158	820 SW	Private	Stock/Domestic	31	9
GW401139	820 N	Unknown	Stock, Domestic	60	19
GW030809	860 SW	Public	Groundwater exploration	55.5*	Unknown
GW031362	880 SW	Public	Monitoring bore	45.70	Unknown
GW030710	880 SW	Public	Stock	40	3.1
GW403953	900 N	Private	Stock, Domestic, Farming	30	9.5
GW031363	930 SW	Public	Public/Municipal	UK	Unknown
GW400814	950 E	Unknown	Stock, Domestic	72	17
GW402040	960 SW	Unknown	Test bore	84	8
GW402039	960 SW	Unknown	Test bore	84	6

Notes: * only drilled depth available (final depth unknown)

It noted that based on the inferred groundwater flow direction, to the south west following the topography, there are 15 registered bores within 1km radius downgradient of the site.

6. Background Information

The following reports were provided by Queanbeyan-Palerang Council for review:

- URS Pty Ltd (URS) *Draft Risk Assessment, Bungendore Landfill Closure*, dated 10 December 2014 (URS 2014); and
- Environment and Natural Resource Solutions Pty Ltd (ENRS) *Water & Landfill Gas Monitoring Event, Bungendore Closed Landfill Facility, Tarago Road, Bungendore, NSW 2621*, dated August 2015 (ENRS, 2015).

6.1 Draft Risk Assessment (URS, 2014)

The draft risk assessment was completed in December 2014 for the Bungendore Landfill Facility to the north of the western end of the site. The risk assessment and associated risk-based monitoring requirements within the document were to form part of the Bungendore Landfill Closure Plan. The location of the landfill is shown on Drawings 1 and 2, Appendix B.

The risk assessment noted that the landfill had been accepting waste since it was designated as a 'garbage depot' in 1905. There is noted to be no engineered liner system and/or leachate and landfill gas management in place.

The assessment outlined the first stage of approach in accordance with requirements from the NSW Environment Protection Authority (EPA). This involved preliminary screening and a qualitative risk assessment based on comprehensive hazard identification and subjective professional assessment of probability.

A conceptual site model was developed for the site with the available information. It was noted that groundwater elevations reported for 2009 suggest groundwater flow is directed towards Lake George (i.e. flows to the north of the landfill and not in the direction of the current site).

The assessment noted that future control measures such as active/passive landfill gas management, capping and maintenance may result in decreased residual risks. Periodic monitoring would be required to demonstrate whether the landfill continued to be a source of landfill gas hazards. Upon completion of the initial stage of monitoring the site-specific results would be available and the conceptual site model could be reviewed and the risks re-assessed.

6.2 Environmental Monitoring Report (ENRS, 2015)

The environmental monitoring report was prepared for the Bungendore Landfill Facility to the north of the site. The scope involved the drilling of groundwater and landfill gas monitoring wells, and one round of sampling to support the closure of the landfill. The work was undertaken in accordance with the Site Environment Monitoring Program (EMP) prepared by URS in 2014 which has not been reviewed by DP.

Four groundwater monitoring bores (GW01 to GW04), one leachate bore (LG01) and six landfill gas bores (LFG01 to LFG06) were constructed around the landfill. Four surface water samples were collected from dams (SW02 to SW04) outside the boundary of the landfill including one sample from the dam within the north western portion of the site. The figure below shows the sample locations in relation to the landfill. The location of the landfill is shown on Drawings 1 and 2, Appendix B.



Figure 1: Location of samples (from ENRS, 2015)

ENRS noted that the results of sampling for landfill gas, surface and groundwater indicated the landfill was suitably contained. ENRS considered that the existing monitoring locations and sampling (specified by the EMP) generally provided suitable assessment of surface water, leachate and groundwater conditions. However, ENRS recommended subsequent monitoring results continue to be reviewed to assess for potential seasonal or temporal changes. In particular, review should be conducted for levels of methane in LFG02 and groundwater chemistry in GW01 which presents similar geochemistry to leachate composition. Minor detections of selected analytes such as trace metals should also continue to be reviewed to establish if levels are associated with background concentrations and the site geology.

A second round of sampling was undertaken in June 2016 by ENRS. There was no report produced, however, the laboratory results were reviewed by DP. It is noted that GW02 could not be sampled in August 2015 due to insufficient sample available, however, this was sampled in June 2016. A leachate sample from LG01 was not analysed in June 2016, however, gas monitoring was undertaken.

The results were generally similar to the previous round for the groundwater and surface water samples collected. Values recorded for sodium and chloride exceeded the ANZECC 2000 – Primary Industries Guidelines and were noted to be above the previous results at GW01. The gas monitoring results were also generally similar to the previous round, however, LG01 recorded higher levels of methane (40.4% in August 2015 to 73.1% in June 2016).

7. Site History

The following sections describe the methodology and outcomes of the brief site history review.

7.1 Regulatory Notice Search Under the CLM and POEO Acts

A search on 2 August 2016 for Statutory Notices issued under the *Contaminated Land Management Act 1997* and *Protection of the Environment Operation Act 1997* (POEO) available on the NSW Environment Protection Agency (EPA) website indicated that there have been no notices issued on the site.

7.2 NSW SafeWork Records Search

A search of the NSW SafeWork's records of the Stored Chemical Information Database (SCID) (letter dated 13 October 2016, refer to Appendix C) indicated that there are no records held for 174 Tarago Street, Bungendore, NSW under the current SCID.

7.3 Section 149 (2 and 5) Planning Certificate

The site is located within the local government area of Queanbeyan City Council. Lot 1 in Deposited Plan 798111 is zoned as RU1 Primary Production.

According to the Section 149 (2 and 5) Planning Certificate, the property has '*no residential dwelling erected on this land that has been identified in the Loose-Fill Asbestos Insulation Register as containing loose-fill asbestos ceiling insulation*'. There are no additional matters that apply to the land in accordance with Section 59 (2) of the *Contaminated Land Management Act 1997*.

Additional information notes that if the site '*contains a building constructed prior to 1980, the Council strongly recommended that the purchaser obtain advice from an appropriately qualified expert as to whether loose fill asbestos is present in any of the buildings (if any) on the site*'. The site is also adjacent to the Bungendore Landfill. '*Council has commissioned investigation into the final capping of the landfill which includes a risk assessment report*', URS (2016). The risk assessment recommended that '*a 250 m buffer be applied to residential redevelopment around the former Bungendore Landfill. The buffer is required to mitigate the risk of landfill gas migration from the deposited waste. This buffer includes part of the current site and will be considered in any future development proposals for this property.*'

The Section 149 (2 and 5) Planning Certificate is included in Appendix C.

7.4 Historical Title Search

A historical title deed search was undertaken to cover approximately the past 100 years and has been summarised in this section. Determination of the ownership or occupancy of the property, including company names, can assist in the identification of previous land uses and therefore assists in establishing potentially contaminating activities. The land title certificates are included in Appendix C.

The site is currently owned by Elmslea Land Developments Pty Limited, who were registered as proprietors in 2004. Ownership of the property prior to this time is summarised in Table 3 below,

together with the occupation of the owner given in the title and the possible use of the site or nature of the business of the site/owner

Table 3: Lot 1 D.P. 798111

Date of Acquisition and term held	Registered Proprietor(s) & Occupations	Landuse
16/04/1913 (1913 to 1968)	Francis George Leahy (Grazier) & his estate	Agricultural
6/06/1968 (1968 to 1971)	Trustees of the Christian Brothers	Unknown / Agricultural
7/09/1971 (1971 to 1985)	Elmslea Pty Limited	Unknown / Agricultural
29/07/1985 (1985 to 1988)	J.D Kilmartin Pty Limited	Unknown / Agricultural
3/11/1988 (1988 to 2004)	Gregory Arthur Brown (Livestock Broker) Sylvia Joan Brown (His Wife)	Agricultural
9/11/2004 (2004 to Date)	Elmslea Land Developments Pty Limited	Unknown / Agricultural

Easements: 13/07/2011 for Water Supply 4 Metres Wide

7.5 Historical Aerial Photography

Historical aerial photographs from six periods of photography, archived by the NSW Land and Property Information were reviewed (refer to Aerial Photograph Plates D1 to D6 in Appendix D). The photographs indicated that the site has undergone changes in layout since the earliest available aerial photograph dated 1961. Aerial photographs examined were as follows:

- 5 November 1961 (Run 1C, 1:42,500, B/W);
- 23 April 1967 (Run 6L, 1:41,100, B/W);
- 23 April 1976 (Run 4, 1:48,000, B/W);
- 6 February 1985 (Run 4, 1:40,000, B/W);
- 24 October 1992 (Run 7, 1:25,000, Colour);
- 2002 (Colour).

The historical aerial photographs were examined for signs of potential areas of environmental concern such as planting patterns, previous structures which may have subsequently been removed, existing structures, stripped soil or areas of fill or disturbance or other signs of a potentially contaminating nature. The findings of the review are summarised below and are shown on Drawing 1, Appendix B:

1961 Aerial Photograph (Plate D1):

- The site appeared to have been arable farmland;

- One dam was noted in the south western portion of the site;
- Four creeks flowed through the site, one in the western portion, one in the central portion, one in the central western portion that flowed through the dam and the last in the north eastern corner of the site all flowing generally in a north to south orientation;
- Tarago Road was constructed along the western boundary and appeared to be a dirt road, and the railway line was constructed along the eastern boundary;
- Some disturbance was noted to the north of the western portion of the site in the location of the Bungendore Landfill Facility; and
- The surrounding area appeared to be arable farmland.

1967 Aerial Photograph (Plate D2):

- The site and surrounding area appear to have remained the same as the *1961 Aerial Photograph*; and
- Additional disturbance was noted in the location of the landfill to the north of the western portion.

1976 Aerial Photograph (Plate D3):

- The site and surrounding area appear to have remained the same as the *1967 Aerial Photograph*;
- Minimal additional disturbance was noted in the location of the landfill to the north of the western portion; and
- An area to the south of the site was disturbed possibly from re-contouring of the land.

1985 Aerial Photograph (Plate D4):

- An area of the southern western portion of the site appeared to have been disturbed possibly due to re-contouring of the land similar to the area south of the site in the *1976 Aerial Photograph*;
- The disturbance to the north of the western portion had increased and appeared to be a landfill; and
- The rest of the site and surrounding appear to have remained the same as the *1976 Aerial Photograph*.

1992 Aerial Photograph (Plate D5):

- Three buildings appeared to have been constructed in the south western corner;
- Two entrance driveways were noted from Tarago Road to the buildings;
- An area of disturbed ground was noted adjacent to one of the entrance driveways;
- Three additional dams were noted within the site including two in the western portion and one in the central portions along creek lines;
- The area of disturbed ground in the south western portion of the site remained slightly visible;
- A dirt track crossed through the western portion in a north to south orientation; and
- Some residential development had been constructed to the south west of the site.

2002 Aerial Photograph (Plate D6):

- Two of the buildings in the south western corner were no longer visible;
- An additional small building was noted to the north of the remaining original building;
- Trees were visible around the larger building;
- The disturbed ground from the *1992 Aerial Photograph* was no longer visible;
- Some residential development had been constructed to the south of the site; and
- The surrounding area remained generally the same as the *1992 Aerial Photograph*.

It is noted that data obtained from aerial photographs was limited due to the relatively small scale and poor resolutions when enlarged.

7.6 Underground Services

A Dial Before you Dig (DBYD) search was conducted to access available services plans to give an indication of potential conduit lines for migration of contamination off-site. Only electricity was noted along the western boundary of the site aligned with Tarago Road.

8. Site Interview

Discussions with Ms Sue Robb from the Queanbeyan-Palerang Council indicated that the site had been subject to weed control undertaken for some years.

An interview with Mr Alex Brinkmeyer, the owner of the site, was undertaken on 26 August 2016. The following information was provided:

- The site had been predominately used for grazing and no knowledge of cropping was noted;
- Spraying for weed control was undertaken across the site annually;
- The locked shed did not contain any storage of chemicals or fuels;
- The shed had been used as storage for items such as bikes and had not been used for some years;
- The storage of any pesticides, herbicides and insecticides was located on another site;
- There was no sheep or cattle dip located on the site;
- The toilet had not been used for many years and did not have a concrete tank just a hole in the ground; and
- No filling of gully lines or similar had been undertaken at the site.

9. Site Walkover

A site walkover was undertaken on 18 August 2016. The site walkover was undertaken to check and identify (where possible) the likely presence, or otherwise, of potential sources of contamination with reference to the site history review, and to identify and comment on additional potential sources of contamination which were encountered/observed. Drawing 2 (Appendix B) and Photographs 1 to 20

(Appendix E) show the layout of the site. The findings of the site walkover are also shown on Drawing 2, Appendix B.

The site walkover confirmed that the site was arable farmland. The entrance to the property was at the south western corner of the site off Tarago Road. The south western portion of the site was occupied by a locked shed, two animal shelters and a separate toilet. These were surrounded by mature trees which extend around the entrance paddock and along the western and part of the northern and southern boundaries of the site; see Photographs 1 to 6, Appendix E.

Some scattered items such as bricks, wood planks and wire were noted around the buildings. An old 20 L drum labelled kerosene was noted near to the locked shed, however, this was empty and appeared to be disused. The locked shed was not able to be accessed at the time of the site walkover and was built on a concrete hardstand foundation. The toilet appeared to be above a hole dug in the ground and no evidence of a pipe to a tank elsewhere was noted; see Photographs 7 to 9, Appendix E.

The remaining areas of the site were open paddocks. Four dams were located on the site with three creeks entering the site generally in a north to south orientation, two of these creeks pass through dams. One creek line crossed through the site in the north eastern corner. A low embankment (approximately 0.5 m high) was noted along the northern boundary with the landfill. A small area of disturbed ground was noted in the south western portion of the site; see Photographs 10 to 15 and 17, Appendix E.

There was scattered rubbish (generally pieces of plastic and cardboard such as food wrappers, bags and boxes) across the site mostly along the boundary with the Bungendore Landfill Facility to the north of the site. The dam located in the north western portion of the site was particularly clogged with rubbish; see Photographs 16 and 17, Appendix E.

One old 200 L fuel drum was noted in the south central portion and two old 200 L fuel drums were noted in the south eastern portion of the site. These all appeared to be empty and disused. A PVC pipe was sticking out of the ground in the central portion of the site. The depth was not visible, however, it appeared to have water at the bottom. It was possibly a disused underground water tank / water supply or an old groundwater bore; see Photographs 18 to 20, Appendix E.

No asbestos-containing material was noted during the site walkover. Buried services were not noted within the site, however, electricity was noted at the western boundary and a sewer line was noted at the eastern boundary of the site.

Three of the buildings, the entrance driveways and the dirt track noted in the aerial photographs were no longer visible. The area of disturbance and disturbed ground noted in the aerial photographs were no longer visible. The building (an animal shelter) noted in the 2002 aerial photograph was still visible.

The site is bounded by Tarago Road to the west, residential properties to the south, a railway line to the east, and a landfill and arable farmland to the north. The surrounding land uses are residential to the south, and arable farmland to the north, west and east. It is considered that the potential for migration of contaminants onto the site from current adjacent land uses is low to moderate.

10. Potential for Contamination

The site history review indicated that the site has been and is currently arable farmland used for grazing. An area of the south western portion of the site was disturbed between 1976 and 1985 with the disturbance still slightly visible in the 1992 aerial photograph.

Three buildings were constructed between 1985 and 1992 likely used for the running of the farm. Two of these buildings were then demolished and a small building constructed north of the remaining original building between 1992 and 2002. It is noted that asbestos is unlikely to be present within the former and current buildings as they were constructed after 1980. Entrance driveways were visible to the buildings in the 1992 and 2002 aerial photographs with an area of disturbed ground noted adjacent to one of the entrance driveways in 1992. A dirt track crossed through the western portion of the site in a north to south orientation in the 1992 aerial photograph. The Bungendore Landfill Facility was noted to the north of the site between 1967 and 2002, however, the URS (2014) report indicated that it had been operating as a 'garbage depot' since at least 1905. The landfill is currently partially open and is going through a closure process.

The site walkover confirmed that the site is currently arable farmland. Four dams are located on the site with three creeks entering the site generally in a north to south orientation, two of these creeks pass through dams. A fourth creek line crosses through the site in the north eastern corner. The south western portion of the site includes a locked shed, two animal shelters and a separate toilet with a hole dug in the ground to collect the waste. The interview with the owner Mr Alex Brinkmeyer noted that the toilet did not have a separate constructed concrete septic tank. An embankment was noted along the northern boundary with the landfill and a small area of disturbed ground was noted in the south western portion of the site. Mr Brinkmeyer had no knowledge of any filling within gully lines or similar across the site.

The locked shed was constructed on a concrete hardstand surface and therefore any minor storage of chemical such as pesticides, herbicides, insecticides or fuel would be unlikely to migrate into the surrounding environment. However, the shed would need to be accessed to determine the extent of any storage. It is also noted that the Queanbeyan-Palerang Council and Mr Brinkmeyer indicated that weed control has been undertaken across the site annually. Mr Brinkmeyer noted that there was no storage of chemicals or fuel at the site and there had not been a sheep or cattle dip at the site.

Scattered rubbish, mostly pieces of plastic and cardboard such as food wrappers, bags and boxes, were noted particularly near to the landfill to the north of the site. Three old 200 L fuel drums and an old 20 L kerosene drum were noted within the site, however, were empty and disused.

The Bungendore Landfill Facility has been subject to assessment and monitoring as part of the planned closure. The environmental monitoring assessment by ENRS (2015) considered that the landfill was suitably contained and recommended continued monitoring. Groundwater has also been noted by URS (2014) to flow to the north from the landfill, away from the current site. DP would consider the recommendations of ENRS for the on-going monitoring of the landfills impacts on the surrounding area to be sufficient at this point in time. Should any information become available that the landfill has an unacceptable impact on the current site this would need to be reviewed and possible additional investigation undertaken on the boundary of the landfill with the site. DP would recommend confirmation be sought that the landfill is not considered to be impacting the current site and that the 250 m buffer applied for any proposed development is appropriate.

Based on observations made during the site history review and site walkover the main sources of potential contamination are considered to be:

- Potential impacts from agricultural land use including weed control. Potential contaminants associated with agricultural use are: metals: arsenic (As), cadmium (Cd), chromium (Cr), copper (Cu), lead (Pb), mercury (Hg), nickel (Ni), zinc (Zn); organochloride pesticides (OCP), organophosphate pesticides (OPP) and herbicides.
- Potential impacts from filling associated with the historical buildings, disturbed ground (historical), dirt tracks (historical and observed). Potential contaminants associated with fill from unknown and contaminated sources are: metals; total recoverable hydrocarbons (TRH); benzene, toluene, ethylbenzene, xylene (BTEX); polycyclic aromatic hydrocarbons (PAH); polychlorinated biphenyls (PCB); OCP; OPP; phenols and asbestos.
- Potential impacts from the separate toilet with a hole dug in the ground. Potential contaminants associated with holes dug in the ground for waste from a toilet are: e.coli, faecal coliforms and salmonella.
- Potential impacts from the offsite landfill. Potential contaminants associated with a landfill are: landfill gas and leachate.

Potential sources of contamination observed on site are shown on Drawings 1 and 2, Appendix B. However, it should be noted that other fill areas not identifiable on aerial photographs or via surface walkover, could be present.

11. Preliminary Conceptual Site Model

A conceptual site model (CSM) is a representation of site-related information regarding potential contamination sources, receptors and exposure pathways between those sources and receptors. The CSM provides the framework for identifying how the site became 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).

11.1 Potential Contamination Sources

Based on Section 9 the potential contamination sources are as follows:

S1 – Agricultural land use and weed control (metals, OCP, OPP, herbicides)

S2 – Filling (metals, TRH, BTEX, PAH, PCB, OCP, OPP, phenols and asbestos)

S3 – Hole dug in the ground for waste from a toilet (e.coli, faecal coliforms and salmonella)

S4 – Landfill (landfill gas, leachate)

11.2 Potential Receptors

11.2.1 Human Health Receptors

Potential human health receptors include the following:

R1 – Current users (unoccupied).

R2 – Construction and maintenance workers.

R3 –End users (residential).

R4 – Land users in adjacent areas (commercial and residential).

11.2.2 Environmental Receptors

Potential environmental receptors include the following:

R5 – Groundwater.

R6 – Terrestrial ecology.

R7 – Surface water.

11.3 Potential Pathways

Potential pathways for contamination present include the following:

P1 – Ingestion and dermal contact.

P2 – Inhalation of dust and/or vapours.

P3 – Surface water run-off.

P4 – Leaching of contaminants and vertical migration into groundwater.

P5 – Lateral migration of groundwater providing baseflow to watercourses.

P6 – Direct contact with terrestrial ecology.

There are buried services along the boundaries of the site however they do not cross through and would not be considered preferential pathways for contamination. There are potential sources of mobile contamination such as hydrocarbons or vapours that could migrate onsite from the adjacent landfill through preferential pathways other than buried services (e.g. fractures in bedrock).

11.4 Summary of Potential Complete Pathways

A 'source–pathway–receptor' approach has been used to assess the potential risks of harm being caused to human, water or environmental receptors from contamination sources on or in the vicinity of the site, via transport pathways (potential complete pathways). The possible pathways between the above sources (S1 to S3) and receptors (R1 to R7) are provided below in Table 4.

Table 4: Summary of Potential Complete Pathways

Source	Transport Pathway	Receptor	Comments
S1 – Agricultural land use: metals, OCP, OPP, herbicides S2 – Filling: metals, TRH, BTEX, PAH, PCB, OCP, OPP, phenols and asbestos.	P1 – Ingestion and dermal contact. P2 – Inhalation of dust and/or vapours.	R1 – Current users (arable farmland). R2 – Construction and maintenance workers. R3 – End users (residential).	An intrusive investigation is required to assess possible contamination including chemical testing of the soils and groundwater. See Note 1.
	P2 – Inhalation of dust and/or vapours.	R4 – Land users in adjacent areas (residential and arable farmland).	
	P4 – Leaching of contaminants and vertical migration into groundwater.	R5 – Groundwater.	
S3 – Hole dug in the ground for waste from a toilet: e.coli, faecal coliforms and salmonella	P3 – Surface water run-off. P5 – Lateral migration of groundwater providing base flow to watercourses.	R7 – Surface water (dams and creek lines).	An intrusive investigation is required to assess the impacts on surface water if the site is found to be contaminated. See Note 2
	P6 – Direct contact with terrestrial ecology.	R6 – Terrestrial ecology.	An intrusive investigation is required to assess possible contamination including chemical testing of the soils, groundwater, leachate and gas.
S4 – Landfill: landfill gas, leachate	P4 – Leaching of contaminants and vertical migration into groundwater.	R5 – Groundwater.	On-going monitoring of the Bungendore Landfill Facility to the north of the site should be undertaken. Confirmation should be sought that the landfill is not considered to be impacting the current site. Further investigation may be required if this cannot be confirmed.

1. It is proposed that leachability testing will be undertaken only if a viable complete pathway between on-site soil contamination and groundwater is identified. Should testing indicate a viable complete pathway between on-site soil contamination and groundwater via a leachable migration pathway then leachability testing (ASLP) may be required.
2. The nearest surface water receptors are the four dams and four creek lines within the site which flow south. Should testing indicate a viable complete pathway between on-site soil contamination and surface water, testing of surface water may be required.

12. Conclusions and Recommendations

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

The results of the draft PSI indicate that the site is generally suitable for the intended residential land use subject to an intrusive subsurface investigation to determine the extent (if any) of potential contamination at the site. Specifically soil sampling across the site targeting the agricultural land use including weed control, the unknown filling and the hole dug in the ground for waste from a toilet.

In regards to the scattered rubbish across the site, there is unlikely to be any impacts to the site considering the inert pieces identified however there is an aesthetic impact. Therefore we would recommend that a more secure barrier be placed between the landfill and the site to minimise the rubbish migrating into the site. The rubbish could also periodically be collected by hand across the site and should be done just prior to site preparation and earthworks commencing for the development.

We would also recommend that the locked shed be accessed to determine if there is any storage of chemicals or fuel, and as noted above in Section 9, on-going monitoring of the Bungendore Landfill Facility to the north of the site should be undertaken. Confirmation should be sought that the landfill is not considered to be impacting the current site and that the 250 m buffer applied for any proposed development is appropriate. Further investigation may be required if this cannot be confirmed.

13. References

- 1 NSW Department of Land and Water Conservation (2000): *Canberra Soil Landscape Series Sheet 8727* 1:100 000 scale map.
- 2 Bureau of Mineral Resources (1992): *Geology of Canberra Geological Series Sheet 8727*, 1:100 000 scale map.
- 3 Bureau of Mineral Resources, Geology and Geophysics (1984): *Hydrogeology of the Australian Capital Territory and Environs* 1:100,000 scale map.

14. Limitations

Douglas Partners (DP) has prepared this report for Lot 1 DP 798111, Bungendore in accordance with DP's proposal dated 24 March 2016, and acceptance from Queanbeyan-Palerang Council dated 17 July 2016. This report is provided for the exclusive use of the Queanbeyan-Palerang Council for this project only and for the purposes as described in the report. It should not be used by or relied upon for other projects or purposes on the same or other site or by a third party. Any party so relying upon this report beyond its exclusive use and purpose as stated above, and without the express written consent of DP, does so entirely at its own risk and without recourse to DP for any loss or damage. In preparing this report DP has necessarily relied upon information provided by the client and/or their agents.

DP's advice is based upon the conditions observed at the site surface during this investigation. The accuracy of the advice provided by DP in this report may be affected by unobserved variations in ground conditions across the site. The advice may also be limited by budget constraints imposed by others or by site accessibility.

Asbestos-containing materials (ACM) have not been detected by observation on the surface of the site. The possible presence of hazardous building materials (HBM) including ACM, cannot be precluded in unobserved or untested parts of the site and hence no warranty can be given that HBM is not present.

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

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

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

Douglas Partners Pty Ltd

Appendix A

About This Report

About this Report

Douglas Partners



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.

Copyright

This report is the property of Douglas Partners Pty Ltd. The report may only be used for the purpose for which it was commissioned and in accordance with the 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.

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.

Appendix B

Drawing 1 – Site Historical Observations
Drawing 2 – Site Observations and Features



Locality Plan

LEGEND

- Approximate Site Boundary
- Disturbed ground noted in the 1985 Aerial Photograph and slightly visible in the 1992 Aerial Photograph
- Dirt track noted in the 1992 Aerial Photograph
- Disturbed ground noted in the 1992 Aerial Photograph
- Buildings noted in the 1992 Aerial Photograph
- Building noted in the 1992 and 2002 Aerial Photographs
- Building noted in the 2002 Aerial Photographs
- Entrance driveways to the buildings noted in the 1992 and 2002 Aerial Photographs
- Bungendore Landfill Facility noted from the 1967 to 2002 Aerial Photograph



NOTE: Base drawing from maps.six.nsw.gov.au





Locality Plan

LEGEND

- Approximate Site Boundary
- Locked shed - scattered rubbish around shed including old 20 L kerosene drum
- Animal shelters
- Toilet with hole beneath for waste
- Old empty 200 L fuel drums
- Disturbed ground
- Embankment
- Possible underground water tank or groundwater bore
- Bungendore Landfill Facility
- Waste Transfer Centre
- Dam with scattered rubbish from landfill
- Dams
- Creek lines
- Approximate Photo Location Direction



NOTE: Base drawing from maps.six.nsw.gov.au



Appendix C

Site History Searches



SafeWork NSW

SafeWork NSW

92-100 Donnison Street, Gosford, NSW, 2250

Locked Bag 2906, Lisarow, NSW, 2252 |

Customer Service Centre 13 10 50

licensing@safework.nsw.gov.au | www.safework.nsw.gov.au

Our Ref: D16/685094

Your ref: Elyse Storr

13 October 2016

Attention: Elyse Storr
Douglas Partners
PO BOX 1487
Fyshwick ACT 2609

Dear Ms Storr,

RE SITE: 174 Tarago Rd Bungendore NSW

I refer to your site search request received by SafeWork NSW on 11 October 2016 requesting information on Storage of Hazardous Chemicals for the above site.

A search of the records held by SafeWork NSW has not located any records pertaining to the above mentioned premises.

For further information or if you have any questions, please call our Customer Service Centre on 13 10 50 or email licensing@safework.nsw.gov.au

Yours sincerely,


Brent Jones
Customer Service Officer
Customer Service Centre - Operations
SafeWork NSW



**PLANNING CERTIFICATE
ISSUED UNDER SECTION 149(2&5)
ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979**

Certificate No.: Plan513/2016
Your Reference: 8833600
Date of Issue: 20 September 2016

Douglas Partners Pty Ltd
PO Box 1487
FYSHWICK NSW 2788

Property Number	41601
Property Address:	174 Tarago Road BUNGENDORE NSW 2621
Legal Description:	Lot 1 DP 798111
Owner	Elmslea Land Developments Pty Ltd

This certificate is provided pursuant to Section 149(2&5) of the Act. At the date of this certificate, the subject land is affected by the following matters.

Notes:

- (a) The information in this certificate only relates to the real property identifier associated with the property and not to any licence or permissive occupancy that may be attached to and included in the property details contained in the description of the land.
- (b) The *Environmental Planning and Assessment Act 1979* will be referred to in this Certificate as 'the Act'.

Disclaimer:

This certificate contains information provided to Council by third parties and is as current as the latest information available to Council at the time of production of this document. Council does not warrant the accuracy of the information contained within the information provided by third parties and has not independently verified the information. It is strongly recommended that you contact the relevant third parties to confirm the accuracy of the information.

Offices:
144 Wallace St, Braidwood
10 Majara St, Bungendore
256 Crawford St, Queanbeyan

Postal:
PO Box 348,
Bungendore NSW 2621
PO Box 90, Queanbeyan
NSW 2620

Contact
Bungendore/Braidwood:
Ph: 02 6238 8111
Fax: 02 6238 1290
E: records@palerang.nsw.gov.au
W: www.palerang.nsw.gov.au

Contact:
Queanbeyan:
Ph: 6285 6000
Fax: 6285 6666
E: council@qcc.nsw.gov.au
W: www.qcc.nsw.gov.au

1. Names of relevant instruments and development control plans

- (1) The name of each environmental planning instrument that applies to the carrying out of development on the land:

Palerang Local Environmental Plan 2014 and State Environmental Planning Policies
(refer to attachment 1)

- (2) The name of each proposed environmental planning instrument that will apply to the carrying out of development on the land and that is or has been the subject of community consultation or on public exhibition under the Act (unless the Director-General has notified the council that the making of the proposed instrument has been deferred indefinitely or has not been approved):

Nil

- (3) The name of each development control plan that applies to the carrying out of development on the land:

Lot 1 DP 798111

Palerang Development Control Plan 2015

2. Zoning and land use under relevant LEPs

- (a) Identity of the zone:

RU1 Primary Production

- (b) The purposes for which development may be carried out without development consent:

Extensive agriculture; Home businesses; Home occupations

- (c) The purposes for which development may not be carried out except with development consent:

Airstrips; Animal boarding or training establishments; Aquaculture; Backpackers' accommodation; Bed and breakfast accommodation; Biosolids treatment facilities; Building identification signs; Business identification signs; Caravan parks; Cellar door premises; Cemeteries; Community facilities; Crematoria; Depots; Dual occupancies; Dwelling houses; Eco-tourist facilities; Environmental facilities; Environmental protection works; Extractive industries; Farm buildings; Farm stay accommodation; Flood mitigation works; Forestry; Function centres; Garden centres; Helipads; Home-based child care; Home industries; Hotel or motel accommodation; Industrial training facilities; Information and education facilities; Intensive livestock agriculture; Intensive plant agriculture; Neighbourhood shops, Open cut mining; Places of public worship; Plant nurseries; Recreation areas; Recreation facilities (outdoor); Restaurants or cafes; Roads; Roadside stalls; Rural industries; Rural workers' dwellings; Secondary dwellings; Service stations; Sewage treatment plants; Truck depots; Veterinary hospitals; Water recycling facilities; Water supply systems

- (d) The purposes for which development is prohibited:

Any development not specified in item (b) or (c)

- (e) Minimum land dimensions for the erection of a dwelling house on the land fixed by development standards applying to the land:

- (1) Minimum area

Lot 1 DP 798111

Minimum Lot Size 80Ha

unless the land is:

- (2) a lot created in accordance with clause 4.1, 4.1AA, 4.1A or 4.1B of the *Palerang Local Environmental Plan 2014*
- (3) a lot created before the commencement of the *Palerang Local Environmental Plan 2014* and on which the erection of a dwelling house was permissible immediately before that commencement, or
- (4) a lot resulting from a subdivision for which development consent (or equivalent) was granted before the commencement of the *Palerang Local Environmental Plan 2014* and on which the erection of a dwelling house would have been permissible if the plan of subdivision had been registered before that commencement, or
- (5) an existing holding as defined in the *Palerang Local Environmental Plan 2014*
- (f) Whether the land includes or comprises critical habitat:

No

- (g) Whether the land is in a conservation area:

No

- (h) Whether an item of environmental heritage is situated on the land:

Lot 1 DP 798111

No

2A. Zoning and land use under *State Environmental Planning Policy (Sydney Region Growth Centres) 2006*

Whether the land is within any zone under:

- (a) Part 3 of the *State Environmental Planning Policy (Sydney Region Growth Centres) 2006*
- (b) A Precinct Plan (within the means of the *State Environmental Planning Policy (Sydney Region Growth Centres) 2006*
- (c) A proposed Precinct Plan that is or has been the subject of community consultation or on public exhibition under the Act

Not relevant

3. Complying Development

- (1) Whether or not the land is land on which complying development may be carried out under each of the codes for complying development because of the provisions of clauses 1.17A (1) (c) to (e), (2), (3) and (4), 1.18 (1) (c3) and 1.19 of *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*.

Zone RU1 - Primary Production	
Code	Land on which complying development may be carried out
Commercial and Industrial (New Buildings and Additions) Code	Not Applicable
Commercial and Industrial Alterations Code	Yes
Demolition Code	Yes
Fire Safety Code	Yes
General Development Code	Yes
General Housing Code	Not Applicable
Housing Alterations Code	Yes
Rural Housing Code	Yes
Subdivisions Code	Yes

4. Coastal Protection

Whether or not the land is affected by section 38 or 39 of the *Coastal Protection Act 1979* (so far as Council has been notified by the Department of Services, Technology and Administration).

The land is not affected by the operation of Section 38 or 39 of the *Coastal Protection Act 1979*.

5. Mine subsidence

Whether or not the land is proclaimed to be a mine subsidence district within the meaning of section 15 of the *Mine Subsidence Compensation Act 1961*

The land is not proclaimed to be a mine subsidence district within the meaning of section 15 of the *Mine Subsidence Compensation Act 1961*

6. Road widening and road realignment

- (a) Is the land affected by a road widening or road realignment under Division 2 of Part 3 of the *Roads Act 1993*

The land is not affected by a road widening or road realignment under Division 2 of Part 3 of the *Roads Act 1993*

- (b) Is the land affected by any road widening or road realignment under any environmental planning instrument

The land is not affected by any road widening or road realignment under any environmental planning instrument

- (c) Is the land affected by any road widening or road realignment under any resolution of the Council

Lot 1 DP 798111

The land is not affected by a road widening or road realignment under a resolution of Council

7. Council and other public authority policies on hazard risk restrictions

- (a) Is the land affected by a policy adopted by council that restricts the development of the land because of the likelihood of land slip, bushfire, tidal inundation, subsidence, acid sulphate soils or any other risk (other than flooding)

No

- (b) Is the land affected by a policy adopted by any other public authority that restricts the development of the land because of the likelihood of landslip, bushfire, tidal inundation, subsidence, acid sulphate or any other risk?

Yes - bushfire

7A. Flood related development controls information

- (1) Whether or not development on that land or part of the land for the purposes of dwelling houses, dual occupancies, multi dwelling housing or residential flat buildings (not including development for the purposes of group homes or seniors housing) is subject to flood related development controls.

Lot 1 DP 798111 No

- (2) Whether or not development on that land or part of the land for any other purpose is subject to flood related development controls.

Lot 1 DP 798111 No

Words and expressions in this clause have the same meanings as in the Instrument set out in the Schedule to the *Standard Instrument (Local Environmental Plans) Order 2006*.

8. Land reserved for acquisition

Whether or not any environmental planning instrument or proposed environmental planning instrument referred to in clause 1 makes provision in relation to the acquisition of the land by a public authority, as referred to in section 27 of the Act

Lot 1 DP 798111 No

9. Contributions plans

Lot 1 DP 798111	Palerang s94 Plan 7 Bungendore Recreation
Lot 1 DP 798111	Yarrowlumla s94 Plan 1 Bungendore
Lot 1 DP 798111	Yarrowlumla s94 Plan 2 Roads

9A. Biodiversity certified land

Whether the land is biodiversity certified land (within the meaning of part 7AA of the *Threatened Species Conservation Act 1995*)

No

10. Biobanking agreements

Whether the land is land to which a biobanking agreement under Part 7A of the *Threatened Species Conservation Act 1995* relates, a statement to that effect (but only if the council has been notified of the existence of the agreement by the Director-General of the Department of Environment, Climate Change and Water).

Council has not been notified of the existence of a biobanking agreement entered under Part 7A of the *Threatened Species Conservation Act 1995*.

11. Bush fire prone land

Whether the land is bush fire prone land.

Lot 1 DP 798111

All of the land is bush fire prone

12. Property Vegetation Plans

Whether Council has been notified that a property vegetation plan under the *Native Vegetation Act 2003* applies to the land

Lot 1 DP 798111

Council has not been notified of the existence of a property vegetation plan applying to the land

13. Orders Under *Trees (Disputes Between Neighbours) Act 2006*

Whether Council has been notified whether an order has been made under the *Trees (Disputes Between Neighbours) Act 2006* to carry out work in relation to a tree on the land.

Council has not been notified of order made under the *Trees (Disputes Between Neighbours) Act 2006* to carry out work in relation to a tree on the land.

14. Directions under Part 3A

Whether there is a direction by the Minister in force under section 75P(2)(c1) of the Act that a provision of an environmental planning instrument prohibiting or restricting the carrying out of a project or a stage of a project on the land under Part 4 of the Act does not have effect, a statement to that effect identifying the provision that does not have effect.

Council has not been advised of any Directions by the Minister under section 75P(2)(c1) of the Act.

15. Site compatibility certificates and conditions for seniors housing

Whether there is a current site compatibility certificate (seniors housing), of which the council is aware, in respect of proposed development on the land:

Council is not aware of any valid site compatibility certificate (seniors housing) applying to the land.

16. Site compatibility certificates for infrastructure

Whether there is a valid site compatibility certificate (infrastructure), of which council is aware of in respect of proposed development on the land.

Council is not aware of any valid site compatibility certificate (infrastructure) applying to the land.

17. Site compatibility certificates and conditions for affordable rental housing

Whether there a current site compatibility certificate (affordable rental housing), of which the council is aware, in respect of proposed development on the land

Council is not aware of any valid site compatibility certificate (affordable rental housing) applying to the land.

18. Paper subdivision information

The name of any development plan adopted by a relevant authority that applies to the land or that is proposed to be subject to a consent ballot.

There is no development plan applying to the land

The date of any subdivision order that applies to the land

There is no subdivision order applying to the land

19. Site verification certificate

Whether there is a current site verification certificate in relation to Division 3 of Part 4AA of the *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007* that Council is aware of.

Council is not aware of any site verification certificate applying to the land.

20. Loose-fill asbestos insulation

If the land includes any residential premises (within the meaning of Division 1A of Part 8 of the *Home Building Act 1989*) that are listed on the register that is required to be maintained under that Division, a statement to that effect.

There is no residential dwelling erected on this land that has been identified in the Loose-Fill Asbestos Insulation Register as containing loose-fill asbestos ceiling insulation. Contact NSW Fair Trading for more information.

Additional matters prescribed by section 59(2) of the *Contaminated Land Management Act 1997*

The following matters are prescribed by section 59 (2) of the *Contaminated Land Management Act 1997* as additional matters to be specified in a planning certificate:

None of the prescribed matters applies to the land.

Advice about any exemption under section 23 or authorisation under section 24 of the *National Building and Jobs Plan (State Infrastructure Delivery) Act 2009*

Council has not been provided with a copy of any such exemption or authorisation applying to the land.

Additional information provided in accordance with section 149(5) of the *Environmental Planning and Assessment Act 1979*

If the land to which this certificate relates contains a building constructed prior to 1980, the Council strongly recommends that any potential purchaser obtain advice from an appropriately qualified expert as to whether loose fill asbestos is present in any building on the land and, if so, the health risks (if any) this may pose for the building's occupants. Prospective purchasers may also wish to ask the current owner if the property has previously been inspected under the NSW WorkCover ceiling insulation testing program. Further information about loose fill asbestos insulation (including information about the NSW WorkCover ceiling insulation testing scheme) can be found at <http://www.nsw.gov.au/loosefillasbestos>

The property is adjacent to the Bungendore Landfill. Council has commissioned investigations into the final capping of the landfill which includes a risk assessment. Council has received the risk assessment report (Bungendore Landfill Closure – Risk Assessment, Revision 001, August 2016) prepared by URS (now part of AECOM). The report recommends that a 250m buffer to residential development around the former Bungendore Landfill be adopted. The buffer is required to mitigate the risk of landfill gas migration from the deposited waste. This buffer covers a portion of the subject property and will be considered in any future development proposals for this property. A formal report will be made to Council in the near future which will further clarify this matter.

Additional Information for 149(5) certificates

1. There have been no development approvals or complying development certificates issued by Council in the previous five years.
2. The property is served by a public road which is maintained by Council. Enquiries related to maintenance schedules can be made to Council.
3. The property does not have a domestic kerbside waste (red-lidded bin) collection service. The nearest waste facility is Bungendore Resource Recovery Facility.
4. The property does not have a domestic kerbside recycling (yellow-lidded bin) collection service. The nearest waste facility is Bungendore Resource Recovery Facility.
5. The property does not have a domestic kerbside food and organics (green-lidded bin) collection service. The nearest waste facility is Bungendore Resource Recovery Facility.



John Wright
Director Planning and Environment
Queanbeyan-Palerang Regional Council

20 September 2016

Attachment 1
State Environmental Planning Policies

No	SEPP NAME	SEPP AIM
21	Caravan Parks	Ensures that where caravan parks or camping grounds are permitted under an environmental planning instrument, movable dwellings, as defined in the Local Government Act 1993, are also permitted. The policy ensures that development consent is required for new caravan parks and camping grounds and for additional long-term sites in existing caravan parks. It also enables, with the council's consent, long-term sites in caravan parks to be subdivided by leases of up to 20 years.
30	Intensive Agriculture	Requires specified matters to be considered for cattle feedlots having a capacity to accommodate 50 or more head of cattle or piggeries having a capacity to accommodate 200 or more pigs or 20 or more breeding sows. The policy also extends the definition of the term rural industry to include composting facilities or works, including facilities and works for the production of mushroom substrate.
33	Hazardous and Offensive Development	Provides new definitions for 'hazardous industry', 'hazardous storage establishment', 'offensive industry' and 'offensive storage establishment'. The definitions apply to all planning instruments, existing and future. The new definitions enable decisions to approve or refuse a development to be based on the merit of proposal. The consent authority must carefully consider the specifics the case, the location and the way in which the proposed activity is to be carried out. The policy also requires specified matters to be considered for proposals that are 'potentially hazardous' or 'potentially offensive' as defined in the policy. For example, any application to carry out a potentially hazardous or potentially offensive development is to be advertised for public comment, and applications to carry out potentially hazardous development must be supported by a preliminary hazard analysis (PHA). The policy does not change the role of councils as consent authorities, land zoning, or the designated development provisions of the EP&A Act.
36	Manufactured Home Estates	Helps establish well-designed and properly serviced manufactured home estates (MHEs) in suitable locations. Affordability and security of tenure for residents are important aspects. To enable the immediate development of estates, the policy allows MHEs to be located on certain land where caravan parks are permitted. There are however, criteria that a proposal must satisfy before the local council can approve development. The policy also permits, with consent, the subdivision of estates either by community title or by leases of up to 20 years. A section 117 direction issued in conjunction with the policy guides councils in preparing local environmental plans for MHEs, enabling them to be excluded from the policy.
44	Koala Habitat Protection	Encourages the conservation and management of natural vegetation areas that provide habitat for koalas to ensure permanent free-living populations will be maintained over their present range. Local councils cannot approve development in an area affected by the policy without an investigation of core koala habitat. The policy provides the state-wide approach needed to enable appropriate development to continue, while ensuring there is ongoing protection of koalas and their habitat.
50	Canal Estates	Bans new canal estates from the date of gazettal, to ensure coastal and aquatic environments are not affected by these developments.

55	Remediation of land	Introduces state-wide planning controls for the remediation of contaminated land. The policy states that land must not be developed if it is unsuitable for a proposed use because it is contaminated. If the land is unsuitable, remediation must take place before the land is developed. The policy makes remediation permissible across the State, defines when consent is required, requires all remediation to comply with standards, ensures land is investigated if contamination is suspected, and requires councils to be notified of all remediation proposals. To assist councils and developers, the Department, in conjunction with the Environment Protection Authority, has prepared Managing Land Contamination: Planning Guidelines.
62	Sustainable Aquaculture	The aims and objectives of this Policy are: • to encourage sustainable aquaculture, including sustainable oyster aquaculture, in the State, namely, aquaculture development which uses, conserves and enhances the community's resources so that the total quality of life now and in the future can be preserved and enhanced, and • to make aquaculture development permissible in certain zones under the Standard Instrument, as identified in the <i>NSW Land Based Sustainable Aquaculture Strategy</i>, and • to set out the minimum site location and operational requirements for permissible aquaculture development (the minimum performance criteria), and • to establish a graduated environmental assessment regime for aquaculture development based on the applicable level of environmental risk associated with site and operational factors (including risks related to climate change, in particular, rising sea levels), and • to apply the Policy to land-based aquaculture development and oyster aquaculture development in the State and to include facility for extension of the Policy to natural water-based aquaculture.
64	Advertising and Signage	Aims to (a) ensure that signage is of high quality design and finish; compatible with the desired amenity and visual character of an area and provides effective communication in suitable locations; (b) regulate signage (but not content); and (c) provide time-limited consents for the display of certain advertisements.
65	Design Quality of Residential Flat Development	Raises the design quality of residential flat development across the state through the application of a series of design principles. Provides for the establishment of Design Review Panel to provide independent expert advice to councils on the merit of residential flat development. The accompanying regulation requires the involvement of qualified designer throughout the design, application and construction stages.
	SEPP (Housing for Seniors or People with a Disability) 2004	Encourages the development of high quality accommodation for ageing population and for people with disabilities
	SEPP (Building Sustainability Index : BASIX) 2004	Operates in conjunction with Environmental Planning Assessment Amendment (Building Sustainability Index: BASIX) Regulation 2004 to ensure the effective introduction of BASIX in NSW. The SEPP ensures consistency in the implementation of BASIX throughout the State by overriding competing provisions in other environmental planning instruments and development control plans, and specifying that SEPP 1 does not apply in relation to development standards arising under BASIX.

	SEPP (Major Development) 2005	Defines what development is state significant development and determined by the Minister for Infrastructure and Planning.
	SEPP (Mining, Petroleum Production and Extractive Industries) 2007	Aims to provide for the proper management and development of mineral, petroleum and extractive material resources for the social and economic welfare of the State. The Policy establishes appropriate planning controls to encourage ecologically sustainable development.
	SEPP (Infrastructure) 2007	Provides a consistent planning regime for infrastructure and the provision of services across NSW, along with providing for consultation with relevant public authorities during the assessment process. The SEPP supports greater flexibility in the location of infrastructure and service facilities along with improved regulatory certainty and efficiency.
	SEPP (Miscellaneous Consent Provisions) 2007	The aims of this Policy are as follows: • to provide that the erection of temporary structures is permissible with consent across the State, • to ensure that suitable provision is made for ensuring the safety of persons using temporary structures, • to encourage the protection of the environment at the location, and in the vicinity, of temporary structures by specifying relevant matters for consideration, • to provide that development comprising the subdivision of land, the erection of a building or the demolition of a building, to the extent to which it does not already require development consent under another environmental planning instrument, cannot be carried out except with development consent.
	SEPP (Rural Lands) 2008	Aims to facilitate the orderly and economic use and development of rural lands for rural and related purposes.
	SEPP (Exempt and Complying Development Codes) 2008	The policy provides exempt and complying development codes that have State-wide application, identifying, in the General Exempt Development Code, types of development that are of minimal environmental impact that may be carried out without the need for development consent; and, in the General Housing Code, types of complying development that may be carried out in accordance with a complying development certificate
	SEPP (Affordable Rental Housing) 2009	Establishes a consistent planning regime for the provision of affordable rental housing. The policy provides incentives for new affordable rental housing, facilitates the retention of existing affordable rentals, and expands the role of not-for-profit providers. It also aims to support local centres by providing housing for workers close to places of work, and facilitate development of housing for the homeless and other disadvantaged people.
	SEPP (Sydney Drinking Water Catchment) 2011	Applies to land in the Sydney hydrological catchment. The aims of this Policy are: (a) to provide for healthy water catchments that will deliver high quality water while permitting development that is compatible with that goal, and (b) to provide that a consent authority must not grant consent to a proposed development unless it is satisfied that the proposed development will have a neutral or beneficial effect on water quality, and (c) to support the maintenance or achievement of the water quality objectives for the Sydney drinking water catchment.

ABN: 42 166 543 255
Ph: 02 9099 7400
Fax: 02 9232 7141
(Ph: 0412 199 304)

Level 14, 135 King Street, Sydney
Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

Summary of Owners Report

LPI

Sydney

Address: - 174 Tarago Road, Bungendore NSW

Description: - Lot 1 D.P. 798111

<u>Date of Acquisition and term held</u>	<u>Registered Proprietor(s) & Occupations where available</u>	<u>Reference to Title at Acquisition and sale</u>
16.4.1913 (1913 to 1968)	Francis George Leahy (Grazier) & his estate	Book 997 No. 84
6.6.1968 (1968 to 1971)	Trustees of the Christian Brothers	Book 2923 No. 563
7.9.1971 (1971 to 1985)	Elmslea Pty Limited	Book 3024 No. 196
29.7.1985 (1985 to 1988)	J.D Kilmartin Pty Limited	Book 3637 No. 686 (Book 3685 No. 766)
3.11.1988 (1988 to 2004)	Gregory Arthur Brown (Livestock Broker) Sylvia Joan Brown (His Wife)	Book 3754 No. 706 To CA35959 Now 1/798111
9.11.2004 (2004 to Date)	Elmslea Land Developments Pty Limited	1/798111

Denotes Current Registered Proprietors

Easements: -

- 13.7.2011 DP1166892 Easement for Water Supply 4 Metres Wide as shown in D.P. 1166892

Leases: - Nil

Yours Sincerely
James McDonnell
9 August 2016

Locality : BUNGENDORE

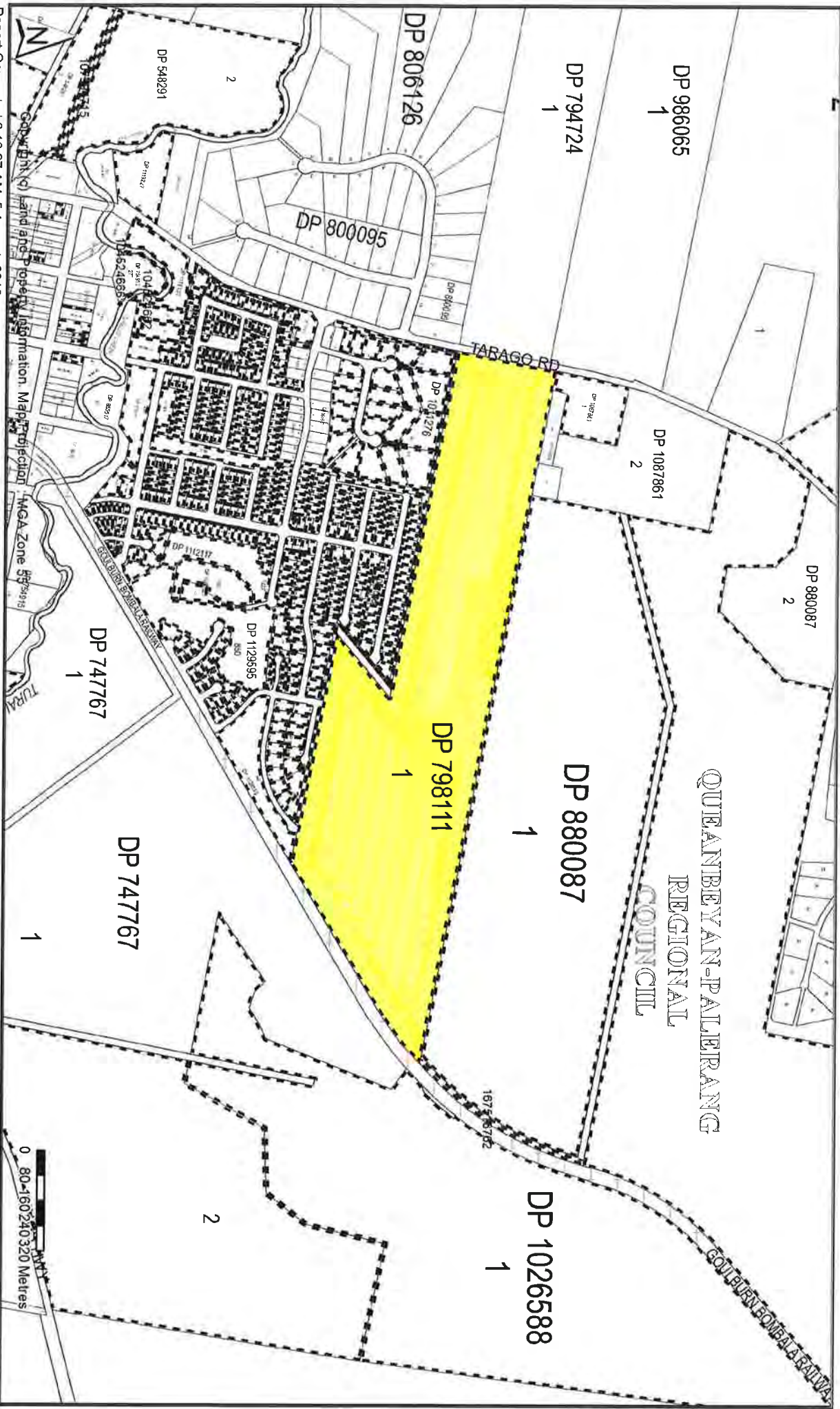
Cadastral Records Enquiry Report

Requested Parcel : Lot 1 DP 798111

Identified Parcel : Lot 1 DP 798111

LGA : QUEANBEYAN-PALERANG REGIONAL Parish : CURRANDOOLY

County : MURRAY



FRAME 2

I, Jack Howard Nelson, Registrar General, certify that this negative is a photograph made as a permanent record of an instrument in my custody this 18th day of July, 1910.

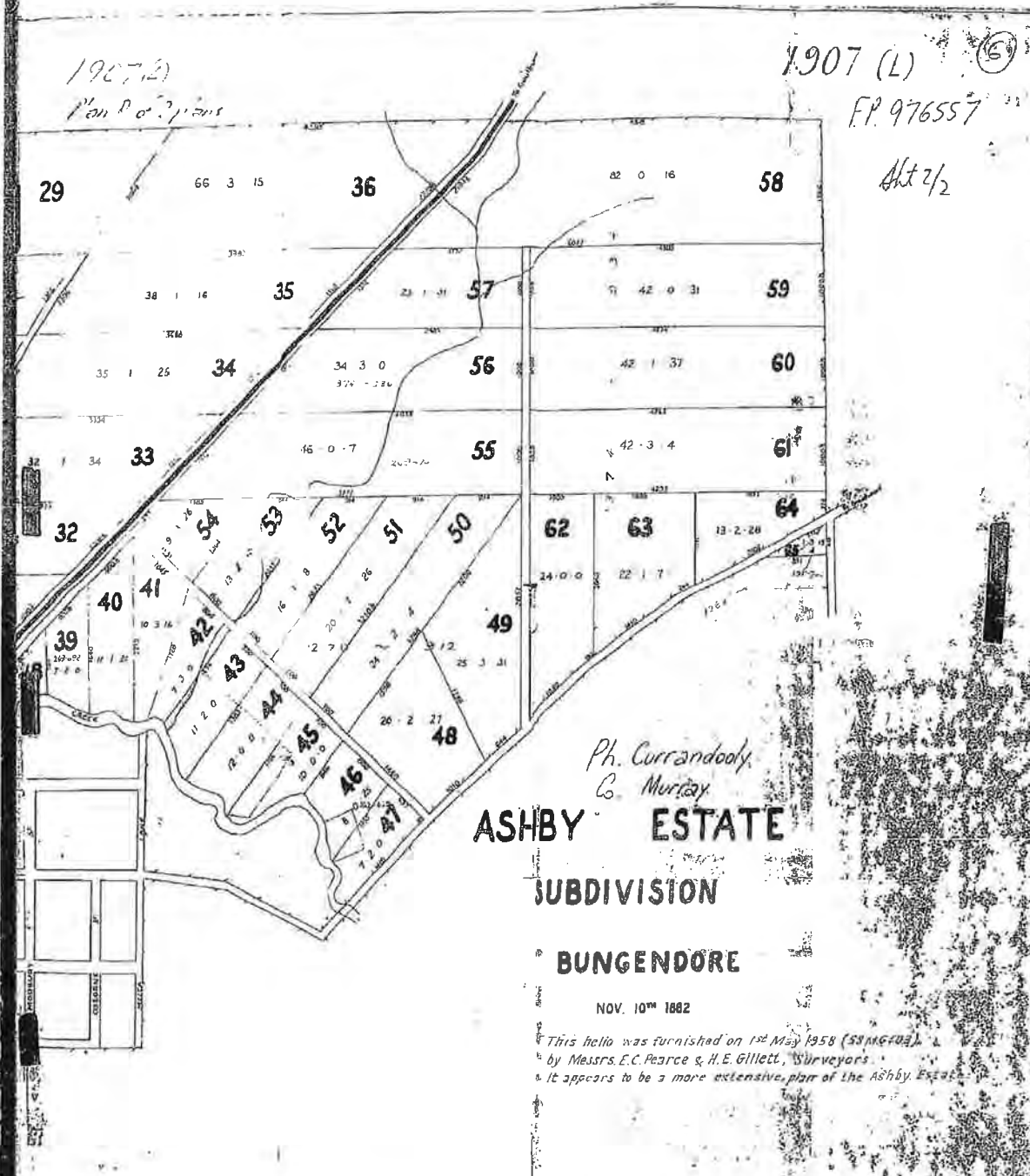
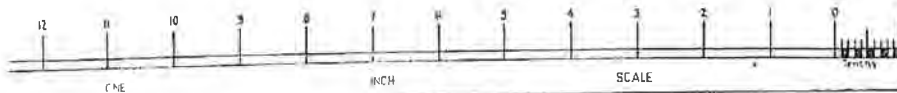
1907
1907(2)
Plan B of 2 plans

F.P. 976557
Aht 2/2

ATCHISON & SCHLEICHER
CIVIL ENGINEERS & LICENSED SURVEYORS
1882

(Tracing from original sale plan)

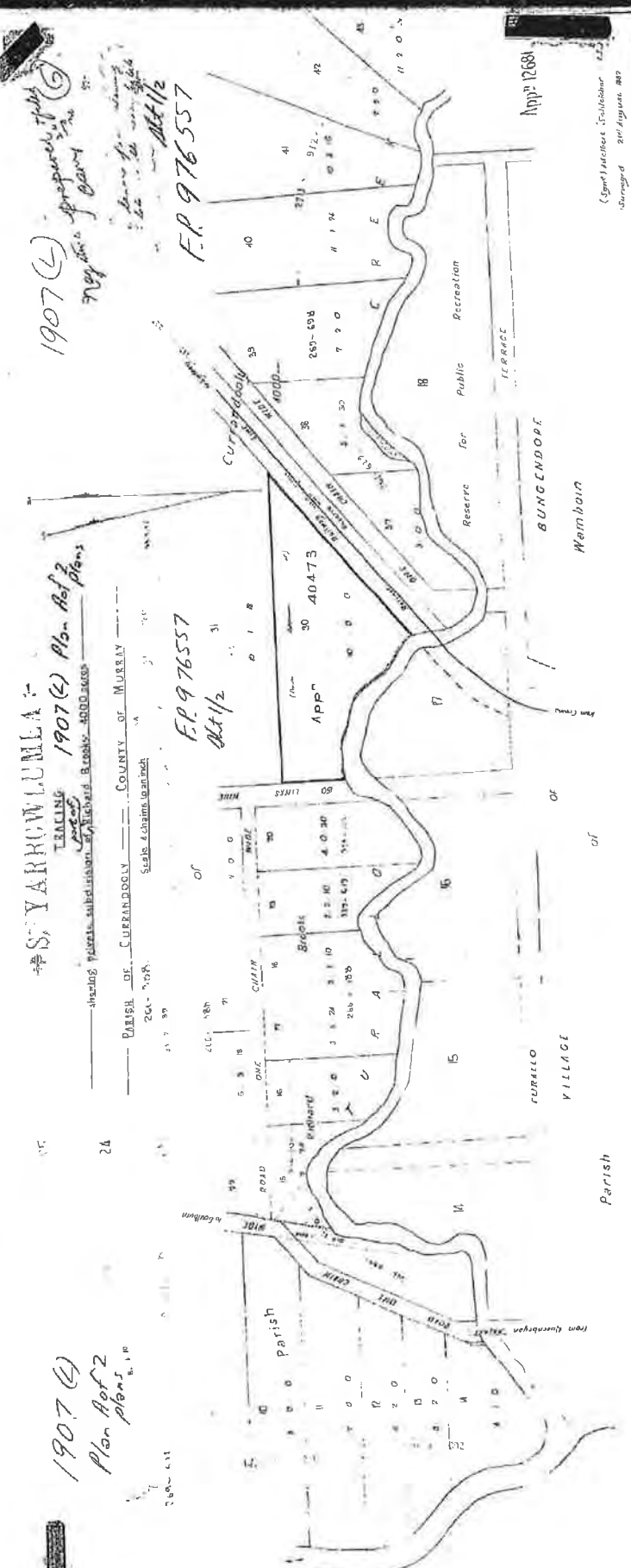




FRAME 1

I, Jack Howard Mason, Registrar General, certify that the negative is a photograph made as a permanent record of an instrument in my custody this 10th day of July 1970.

J. H. H. H.



App: 12688
(Sgt) Victor Colclough
Surgeon 2nd August 1907

I, Jack Heyward Wilson, Registrar General, certify that this negative is a photograph made in accordance with the provisions of the Act of 1907.

Jack Wilson

PLAN OF THE LAND COMPRISED IN DEED		D P 798111	
BK. 3754 NO. 706 CA. 35959		Registered: LA 16-2-1989	
Locality: BUNGENDORE Shire: YARROWLUMLA Parish: CURRANBOUL County: MURRAY		Title System: OLD SYSTEM Purpose: LIMITED FOLIO CREATION Ref Map: 8727-1-S #	
Reduction Ratio 1:15000 Lengths are in metres		Last Plan: D P 976557	
THIS PLAN WAS PREPARED SOLELY TO IDENTIFY THE LAND IN THE ABOVE DEED AND THE BOUNDARIES HAVE NOT BEEN INVESTIGATED BY THE REGISTRAR GENERAL THE PLAN IS NOT A CURRENT PLAN IN TERMS OF SEC. 327AA LOCAL GOVERNMENT ACT 1919.			

AMENDMENTS AND/OR ADDITIONS MADE ON PLAN IN THE LAND TITLES OFFICE	
10	20 30 40 50 60 70 Table of mm 110 120 130 140

This negative is a photograph made as a permanent record of a document in the custody of the Registrar General this day 15th March 1989	
---	--

PLAN AMENDED IN L.T.O. 93.1989	
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PLAN FORM 2 (A2)

SCHEDULE OF SHORT BOUNDARIES

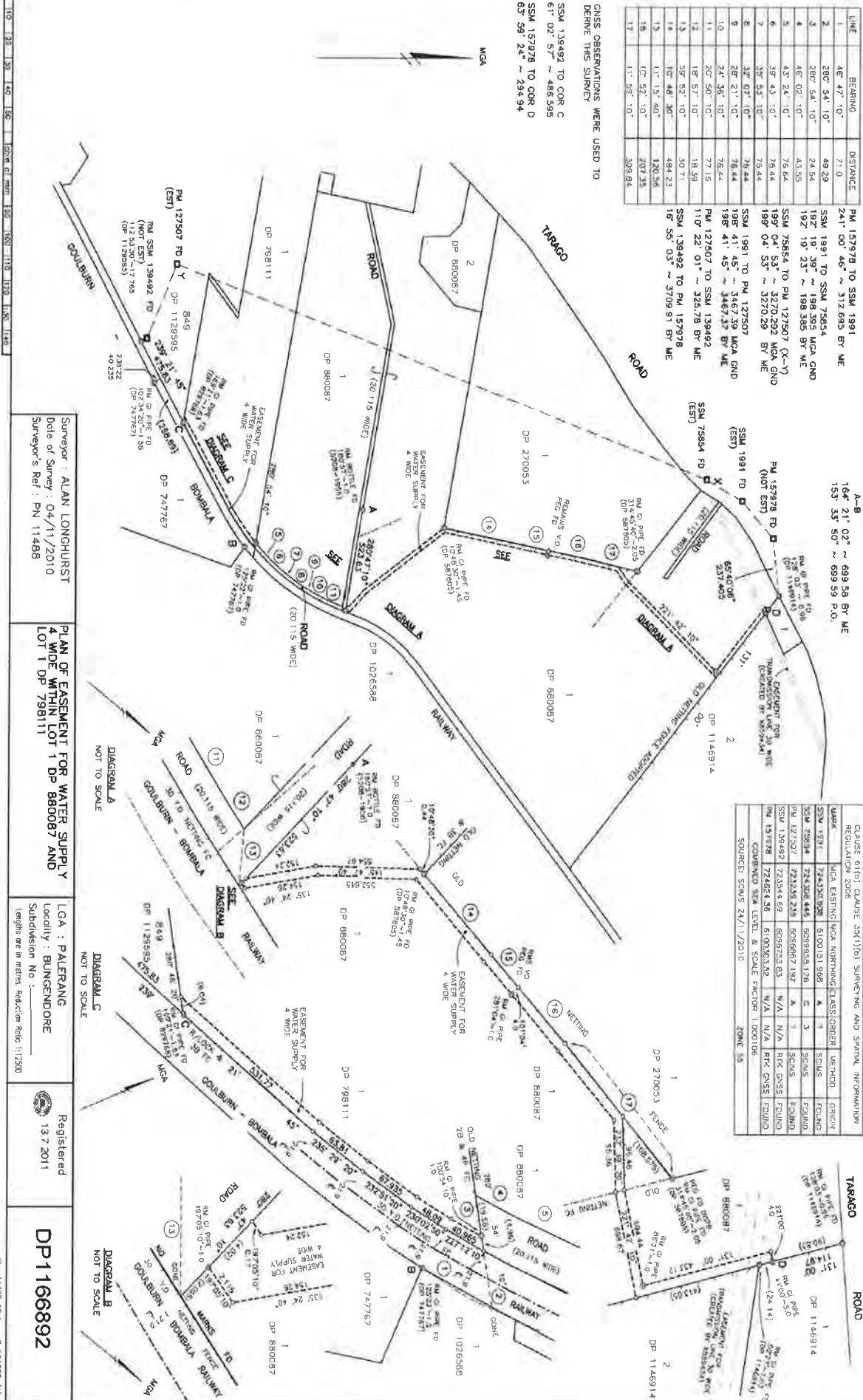
LINE	BEARING	DISTANCE
1	46° 47' 10"	71.0
2	280° 54' 10"	48.29
3	280° 54' 10"	24.54
4	46° 02' 10"	43.55
5	43° 24' 10"	75.64
6	39° 43' 10"	75.44
7	39° 07' 10"	75.44
8	28° 21' 10"	75.44
9	28° 50' 10"	77.15
10	18° 57' 10"	18.39
11	58° 52' 10"	30.71
12	10° 46' 30"	484.23
13	11° 15' 40"	120.26
14	10° 52' 10"	207.35
15	11° 58' 10"	209.84

CNS OBSERVATIONS WERE USED TO DERIVE THIS SURVEY

SSM 139492 TO COR C
 61° 02' 57" ~ 485.595
 SSM 157978 TO COR D
 63° 59' 24" ~ 294.94

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

Plan Sheet 1 of 10 sheets



CLAUSE 6(1)(b) SURVEYING AND SPATIAL INFORMATION					
DATE	MCA EASTING	MCA NORTHING	CLASS	ORDER	METHOD
SSM 139492	724320.208	6100131.988	A	1	SCANS
SSM 157978	724320.208	6098884.178	C	3	SCANS
SSM 139492	724320.208	6098884.178	A	1	SCANS
SSM 157978	724320.208	6098884.178	A	1	SCANS
SSM 139492	724320.208	6098884.178	A	1	SCANS
SSM 157978	724320.208	6098884.178	A	1	SCANS
SSM 139492	724320.208	6098884.178	A	1	SCANS
SSM 157978	724320.208	6098884.178	A	1	SCANS

Surveyor: ALAN LONGHURST
 Date of Survey: 04/11/2010
 Surveyor's Ref: PN 11488

PLAN OF EASEMENT FOR WATER SUPPLY
 4 WIDE WITHIN LOT 1 DP 880087 AND
 LOT 1 DP 798111

LCA: PALERANG
 Locality: BUNGENDORE
 Subdivision No: -

Registered
 13.7.2011

DP1166892

DEPOSITED PLAN ADMINISTRATION SHEET

Sheet 1 of 1 sheet(s)

SIGNATURES, SEALS AND STATEMENTS of intention to dedicate public roads, public reserves and drainage reserves or create easements, restrictions on the use of land and positive covenants

Office Use Only

DP1166892

PURSUANT TO SECTION 88B OF THE
CONVEYANCING ACT 1919 IT IS INTENDED TO
CREATE:

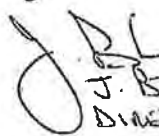
(1) EASEMENT FOR WATER SUPPLY 4 WIDE

SHARE STAR HOLDINGS PTY LIMITED


A. BRINKMEYER
SOLE DIRECTOR

ELANISKEA LAND DEVELOPMENTS
PTY LIMITED


A. BRINKMEYER
DIRECTOR


J. BRINKMEYER
DIRECTOR/SECRETARY

If space is insufficient use PLAN FORM 6A annexure sheet

Crown Lands NSW/Western Lands Office Approval

I.....in approving this plan certify

(Authorised Officer)

that all necessary approvals in regard to the allocation of the land
shown herein have been given

Signature:

Date:

File Number:

Office:

Subdivision Certificate

I certify that the provisions of s.109J of the Environmental Planning and
Assessment Act 1979 have been satisfied in relation to:

the proposed set out herein

(insert 'subdivision' or 'new road')

* Authorised Person/*General Manager/*Accredited Certifier

Consent Authority:

Date of Endorsement:

Accreditation no:

Subdivision Certificate no:

File no:

* Strike through inapplicable parts.

Registered:



13.7.2011

Office Use Only

Title System:

TORRENS

Purpose:

EASEMENT

PLAN OF EASEMENT FOR WATER SUPPLY
4 WIDE WITHIN LOT 1 DP 880087 & LOT 1
DP 798111

LGA:

PALERANG

Locality:

BUNGENDORE

Parish:

CURRANDOOLY

County:

MURRAY

Survey Certificate

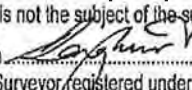
I, ALAN RAYMOND LONGHURST

of PHL SURVEYORS BUNGENDORE

a surveyor registered under the Surveying and Spatial Information Act
2002, certify that the survey represented in this plan is accurate, has
been made in accordance with the Surveying and Spatial Information
Regulation 2006 and was completed on: 4/11/2010

The survey relates to EASEMENT ONLY

(specify the land actually surveyed or specify any land shown in the
plan that is not the subject of the survey)

Signature  Dated: 20/11/10

Surveyor registered under the Surveying and Spatial
Information Act 2002

Datum Line: X-Y

Type: Rural

Plans used in the preparation of survey/compilation

DP 747767

DP 587805

DP 1146914

DP 1129595

DP 829768

M 5764-1956

M 5208-1956

DP 798111

DP 880087

M 5395-1956

If space is insufficient use PLAN FORM 6A annexure sheet

Surveyor's Reference: PN11488

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - HISTORICAL SEARCH

SEARCH DATE

5/8/2016 8:01AM

FOLIO: 1/798111

First Title(s): OLD SYSTEM

Prior Title(s): CA35954

Recorded	Number	Type of Instrument	C.T. Issue
6/3/1989	CA35954	CONVERSION ACTION	FOLIO CREATED EDITION 1

PRIOR TITLES(S) AS AMENDED:
CA35959.

20/6/1991	Z730048	DEPARTMENTAL DEALING	
6/5/2004	AA611120	DEPARTMENTAL DEALING	
30/9/2004	AA989334	DISCHARGE OF MORTGAGE	EDITION 2
9/11/2004	AB81365	TRANSFER	EDITION 3
28/9/2009	AE989005	MORTGAGE	EDITION 4
20/4/2011	AG189417	DISCHARGE OF MORTGAGE	EDITION 5
13/7/2011	DP1166892	DEPOSITED PLAN	EDITION 6

*** END OF SEARCH ***

TRANSFER
New South Wales
Real Property Act 1900



AB81365X

751 5900 3
227 1 1

STAMP DUTY

PRIVACY NOTE: this information is legally required and will

Office of State Revenue use only

Trans No: 2744-13

(A) TORRENS TITLE

If appropriate, specify the part transferred
Folio Identifier 1/798111

(B) LODGED BY

Delivery
Box

Name, Address or DX and Telephone

CODE

TW

(Sheriff)

Reference (optional):

(C) TRANSFEROR

GREGORY ARTHUR BROWN and SYLVIA JOAN BROWN

(D) **CONSIDERATION** The transferor acknowledges receipt of the consideration of \$ 1,500,000.00

and as regards

(E) **ESTATE** the land specified above transfers to the transferee an estate in fee simple.

(F) SHARE TRANSFERRED WHOLE

(G) Encumbrances (if applicable):

(11) TRANSFEREE

ELMSLEA LAND DEVELOPMENTS PTY LIMITED ACN 066 447 265

(1) TENANCY:

(J) DATE

I certify that the person(s) signing opposite, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this instrument in my presence.

Certified correct for the purposes of the Real Property Act 1900 by the transferor.

Signature of witness: Debra J. Bernier

Signature of transferor:

Name of witness: DEBORAH BREMER

Address of witness: 260 CRAWFORD STREET
QUEANBEYAN NSW 2620

L. Brown
J. Brown

Certified correct for the purposes of the Real Property Act 1900 by the person whose signature appears below.

Signature:

Signatory's name: IAN LONGFIELD MARJASON
Signatory's capacity: Solicitor for the transferee

LAND AND PROPERTY INFORMATION NEW SOUTH WALES - TITLE SEARCH

FOLIO: 1/798111

SEARCH DATE	TIME	EDITION NO	DATE
5/8/2016	3:14 PM	6	13/7/2011

LAND

LOT 1 IN DEPOSITED PLAN 798111
AT BUNGENDORE
LOCAL GOVERNMENT AREA QUEANBEYAN-PALERANG REGIONAL
PARISH OF CURRANDOOLY COUNTY OF MURRAY
TITLE DIAGRAM DP798111

FIRST SCHEDULE

ELMSLEA LAND DEVELOPMENTS PTY LIMITED (T AB81365)

SECOND SCHEDULE (3 NOTIFICATIONS)

- 1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
- 2 BK 3754 NO 706 COVENANT
- 3 DP1166892 EASEMENT FOR WATER SUPPLY 4 METRE(S) WIDE AFFECTING
THE PART(S) SHOWN SO BURDENED IN DP1166892

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

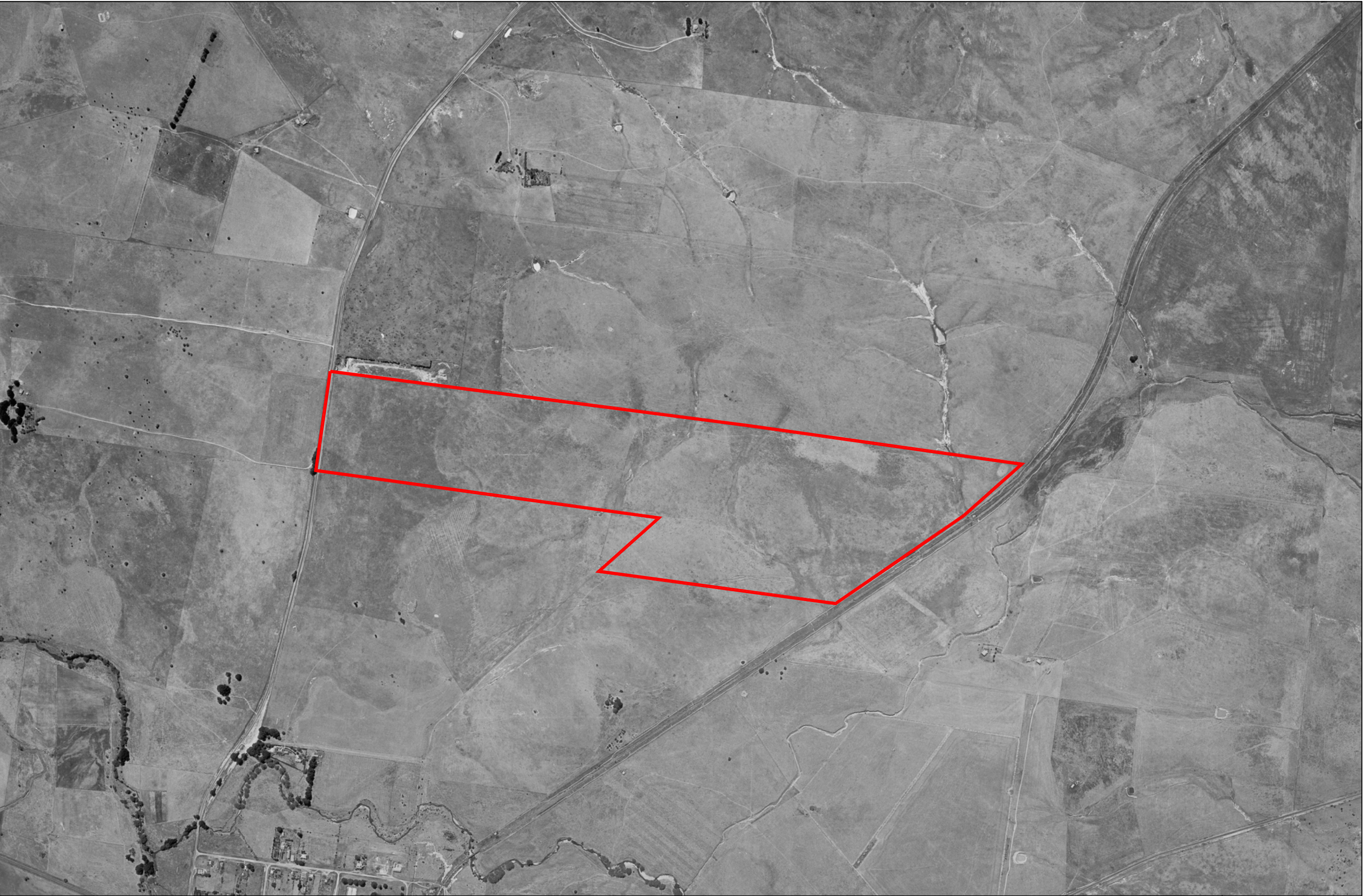
Bungendore

PRINTED ON 5/8/2016

Appendix D

Historical Aerial Photographs (Six Plates)





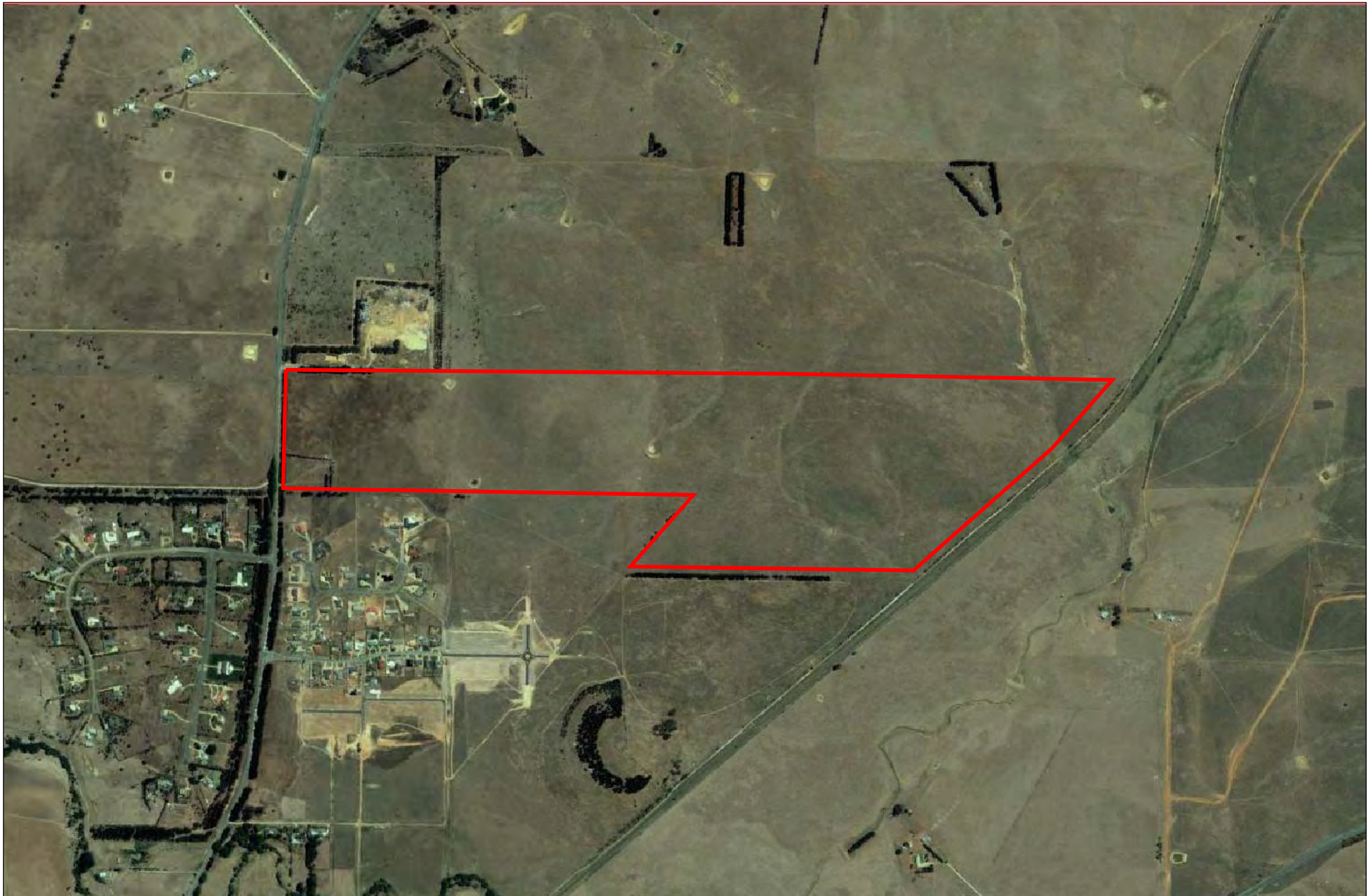
 Douglas Partners Geotechnics Environment Groundwater	CLIENT: Queanbeyan-Palerang Council		TITLE: Aerial Photograph 1967 Proposed Residential Development Lot 1 DP 798111, Bungendore		PROJECT No: 88336.00
	OFFICE: Canberra	DRAWN BY: ESS			PLATE No: D2
	SCALE: NTS	DATE: 18.07.2016			REVISION: 0







 Douglas Partners Geotechnics Environment Groundwater	CLIENT: Queanbeyan-Palerang Council		TITLE: Aerial Photograph 1992 Proposed Residential Development Lot 1 DP 798111, Bungendore		PROJECT No: 88336.00
	OFFICE: Canberra	DRAWN BY: ESS			PLATE No: D5
	SCALE: NTS	DATE: 18.07.2016			REVISION: 0



Appendix E

Site Photographs (Ten Plates)



Photo 1: Arable farmland looking east



Photo 2: Mature trees along western boundary



Site Photographs

**Proposed Residential Development
Lot 1 DP 798111, Bungendore**

Client

Queanbeyan - Palerang
Council

PROJECT:

88336

Plate

1

REV:

A

DATE:

18-Aug-16



Photo 3: Locked shed



Photo 4: Animal shelter



Photo 5: Animal shelter



Photo 6: Toilet with hole dug beneath for septic tank



Photo 7: Scattered rubbish - bricks



Photo 8: Scattered rubbish - wood planks



Photo 9: Scattered rubbish - old empty 20 L drum



Photo 10: Dam in south western portion



Photo 11: Dam in central portion



Photo 12: Dam in south eastern portion



Photo 13: Creek line through north eastern corner



Photo 14: Embankment along northern boundary with landfill



Photo 15: Small area of disturbed ground



Photo 16: Landfill to the north



Photo 17: Dam in the north western portion - scattered rubbish from landfill



Photo 18: Old empty 200 L drum



Photo 19: Old empty 200 L drum



Photo 20: Possible underground water tank or groundwater bore