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Report on
Preliminary Site Investigation for Contamination

Proposed Residential Development
Kings Hill, North Raymond Terrace

Prepared for
PM No 1 Pty Ltd

Project 81502.14
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Douglas Partners
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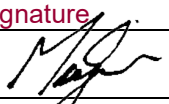
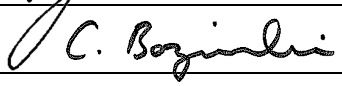
Author		3 August 2020
Reviewer		3 August 2020

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Report on Preliminary Site Investigation for Contamination
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1. Introduction

This report presents the results of a preliminary site investigation for contamination undertaken for a proposed residential development at Kings Hill, North Raymond Terrace. The investigation was commissioned in an email dated 22 July 2020 by Adam Smith in behalf of PM No 1 Pty Ltd and was undertaken with reference to Douglas Partners Pty Ltd (DP) proposal NCL200427 dated 21 July 2020.

It is understood that the development of the site will include future residential development. The main features of the development would include:

- Residential allotments within the southern and eastern parts of the site;
- Numerous internal roads, with two principal roads namely the East-West Road and the North-South Road;
- Two water storage reservoirs within the higher, central area of the site; and
- Environmental protection areas in the northern and western areas.

The assessment comprised the following:

- A desktop review of geological, topographical and acid sulfate soil maps, brief review of former site investigations and a brief site history;
- Site inspection over the period of June to July 2020 by a senior engineer from DP; and
- Preparation of this report which presents the findings of the assessment.

The preliminary assessment has been undertaken with reference to the NSW EPA “Guidelines for Consultants Reporting on Contaminated Sites”, (NSW EPA, 2020) and National Environment Protection (Assessment of Site Contamination) Measure 1999 amended 2013 (NEPC, 2013).

For the purposes of the assessment, Northrop Consulting Engineers, acting on behalf of the client, provided DP with concept plans of the proposed development. The conceptual subdivision layout is shown on Drawings A1 to A3 and E1 to E3 in Appendix C.

2. Site Identification

The site is a two parcels of land, located approximately 4 km to the north-east of Raymond Terrace and is identified as Lot 4821 in DP852073 and Lot 41 in DP1037411 (refer Figure 1 below).

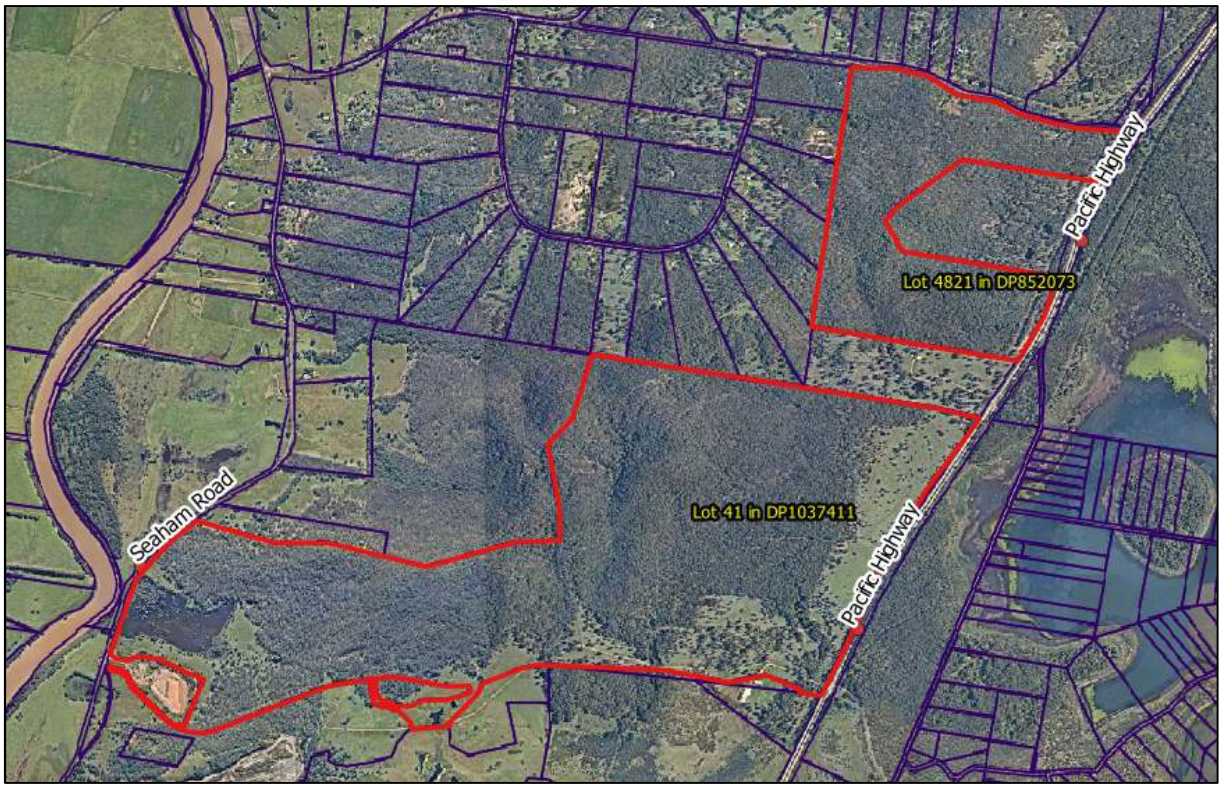


Figure 1: Aerial image showing extent of greater site (red boundaries) and lot boundaries (blue lines)

Ground surface levels (refer Drawings E1 to E3 for contours) throughout Lot 41 generally fall to the east and south with typical elevation ranges as follows:

- From about RL 130 m AHD in the north-western area down to RL 20 m AHD along the eastern boundary;
- RL 60 m AHD to 80 m AHD along the northern boundary of the western section of Lot 41, falling to about RL 5 m AHD (approximately) within the wetlands in the western area and about RL 10 m to RL 20 m AHD along the southern boundary;
- An exception to this topography is a rise from the wetland to about RL 40 m AHD along the southern boundary which is associated with a hill with an elevation of about RL 70 m between the site and existing landfill to the south.

Ground surface levels within Lot 4821 generally fall to the eastern and north-east with typical elevation ranges as follows:

- From about RL 100 m AHD in the south-western corner down to RL 20 m AHD along the eastern boundary;
- From about RL 20 m to 50 m AHD along the northern boundary; and
- Falling to the north-west in the north-western area from about RL 80 m AHD to RL 40 m AHD.

The majority of the site comprises a dense coverage of mature trees (refer Drawings A1 to A3). The cleared and semi-cleared areas of the site are generally located within the south-western area and along the southern boundary, as well as in the eastern area of the site in a strip of land of approximately 200 m wide along the Pacific Highway in Lot 41.

3. Previous DP Investigations

DP has undertaken a number of previous investigations for the proposed development and several relevant investigations in the vicinity of the site, as follows. Drawings E1 to E3 in Appendix C provide a summary of the test locations undertaken by DP on the site:

Investigations for the Proposed Development

- Geotechnical investigation for the development (DP, 2020), which included the excavation of a number of pits throughout the site;
- Preliminary geotechnical assessment for stormwater channel (DP, 2014), which included drilling of a number of bores within the north-eastern area of the site (Bores 1 to 7);
- Previous investigation into the proposed grade separated interchange (DP, 2015b). This previous investigation included the excavation of test pits (Pit 302, 304 and 305) and bores (Bores 101 and 102, 301 and 303, 401 to 403) in the eastern area of the site (and to the east of the Pacific Highway);
- Assessment of rock type (DP, 2017), which included the excavation of pits in the south-eastern part of the site (2017 series pits);
- Preliminary geotechnical assessment along the east-west proposed road alignment (DP, 2015d), which included a walkover inspection of proposed road alignments and also dynamic penetrometer testing;
- Investigation into the proposed rezoning of the site (DP, 2005). This included excavation of a number of pits across the broader site (1 series pits).

Investigations nearby the Site

- A previous investigation undertaken by DP for the Grahamstown Dam spillway included the drilling of two bores at the location of the spillway adjacent to the Pacific Highway, approximately 1.3 km south of the proposed interchange. Conditions encountered in these bores included very low to low strength conglomerate and mudstone bedrock, which was underlain by medium strength basalt at depths of about 7 m to 10 m. The strength of the basalt increased to high to very high at depths of about 9 m and 12 m. These materials are consistent with the expected lithology of the Dalwood Group.

4. Review of Mapping

As part of the assessment, a brief review of the following mapping was undertaken:

- Geological Mapping;
- Soil Landscape Mapping; and
- Acid sulfate soil mapping.

The results of the review are discussed in Sections 4.1 to 4.3.

4.1 Geological Mapping

Figure 2, below, is an extract from the 1:100,000 Newcastle Coalfield Regional Geology Sheet (9231). Drawings A1 to A3 in Appendix C provides the geological mapping for the site with current and previous investigation locations.

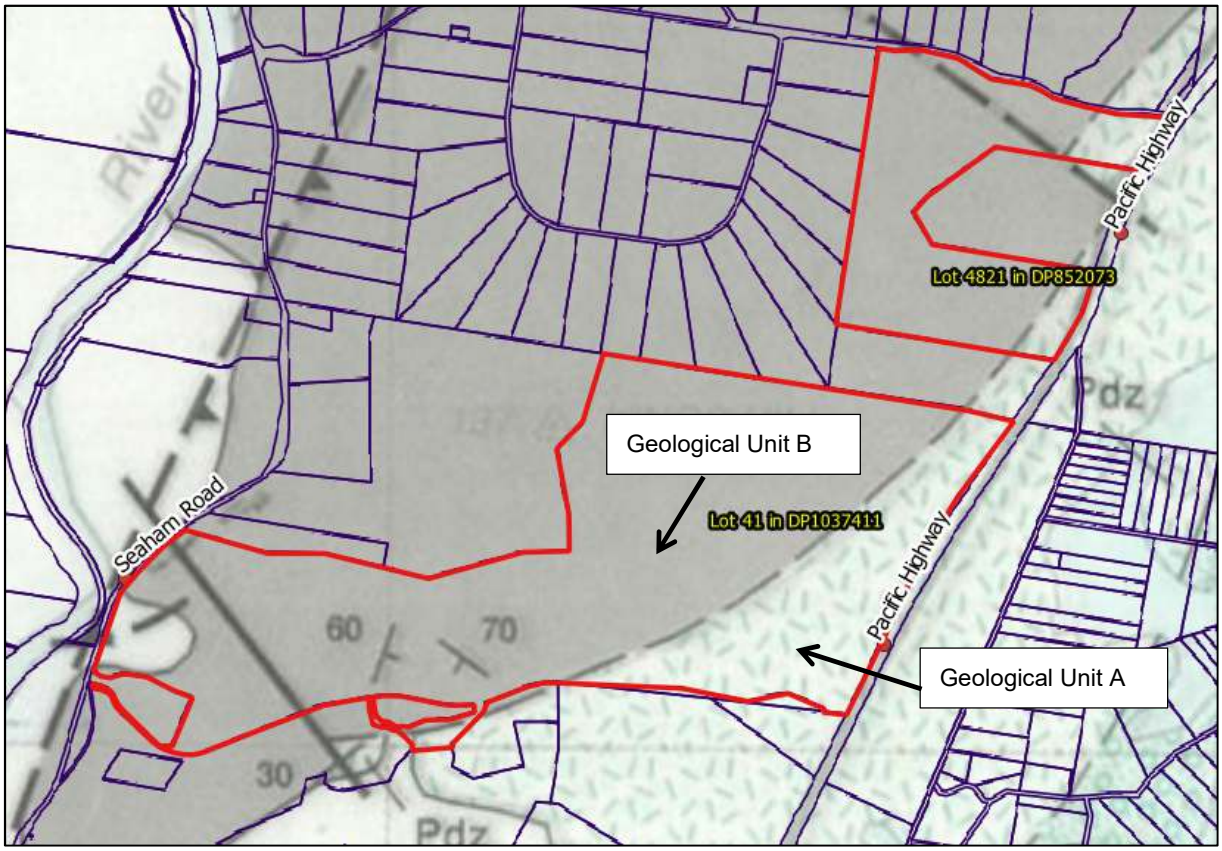


Figure 2: Extract from geological mapping (red – site boundaries)

The mapping indicates that the site lies over two geological units, as follows:

- Dalwood Group (undifferentiated) of Permian age rocks (Geological Unit A), comprising sandstone, siltstone, conglomerate, marl and basalt; and
- Undifferentiated Carboniferous (Geological Unit B) comprising tuff, ignimbrite interbedded with conglomerate, sandstone and shale.

The conditions encountered in the former pits within the site were generally indicative of these two geological units.

4.2 Soil Landscape Mapping

Figure 3, below, is an extract from the Soil Landscape Mapping for the area.

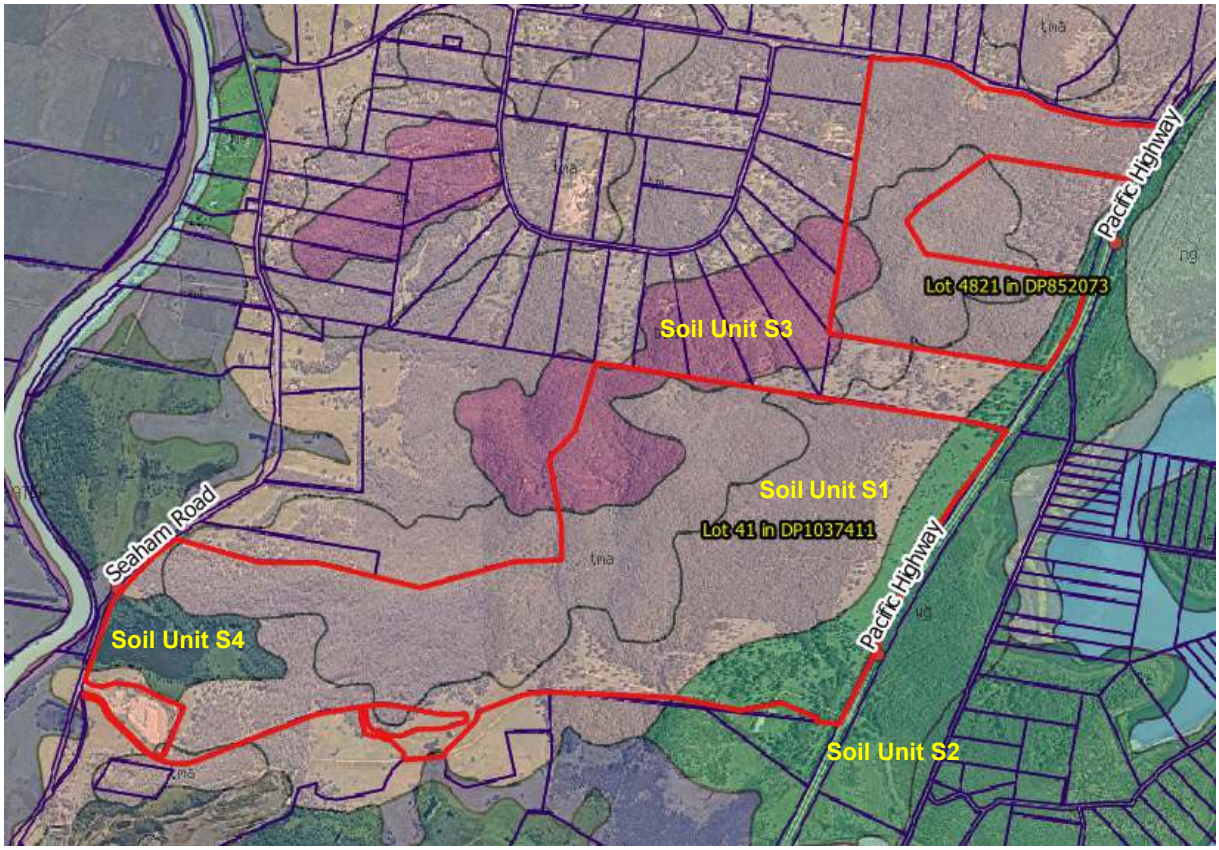


Figure 3: Extract from Soil Landscape Mapping (red – site boundaries)

The mapping indicates that the site extends over soils belonging to four landscape groups, as follows:

- Soil S1: Ten Mile Road Group (erosional). Limitations associated with this soil group include a high water erosion hazard, localised shallow soils, high run-on and seasonal waterlogging. These soils have been reported to be strongly to extremely acid;
- Soil S2: Wallalong Group (residual). Limitations associated with this soil group include high water erosion hazard, localised seasonal waterlogging and shallow soils. These soils have also been reported to be very highly acidic;
- Soil S3: Birdsview Variant A. Limitations associated with this soil group include steep slopes, mass movement hazard, water erosion hazard, high run-on, localised foundation hazard and localised shallow soil; and
- Soil S4: Hexham Swamp. Limitations associated with this soil group include flood hazard, permanently high watertable, seasonal waterlogging, foundation hazard, groundwater pollution hazard, highly plastic potential, acid sulfate soil.

4.3 Acid Sulfate Soil Mapping

Reference to the statewide digital acid sulfate soil mapping indicates that the site is located in an area mapped as having no known occurrence of acid sulfate soils. It is noted that an area mapped as having a high probability of acid sulfate soils is located in the south-western area of the site (the wetland) and also immediately to the south of the site. Figure 4 below is an extract from the acid sulfate soil mapping for the area.

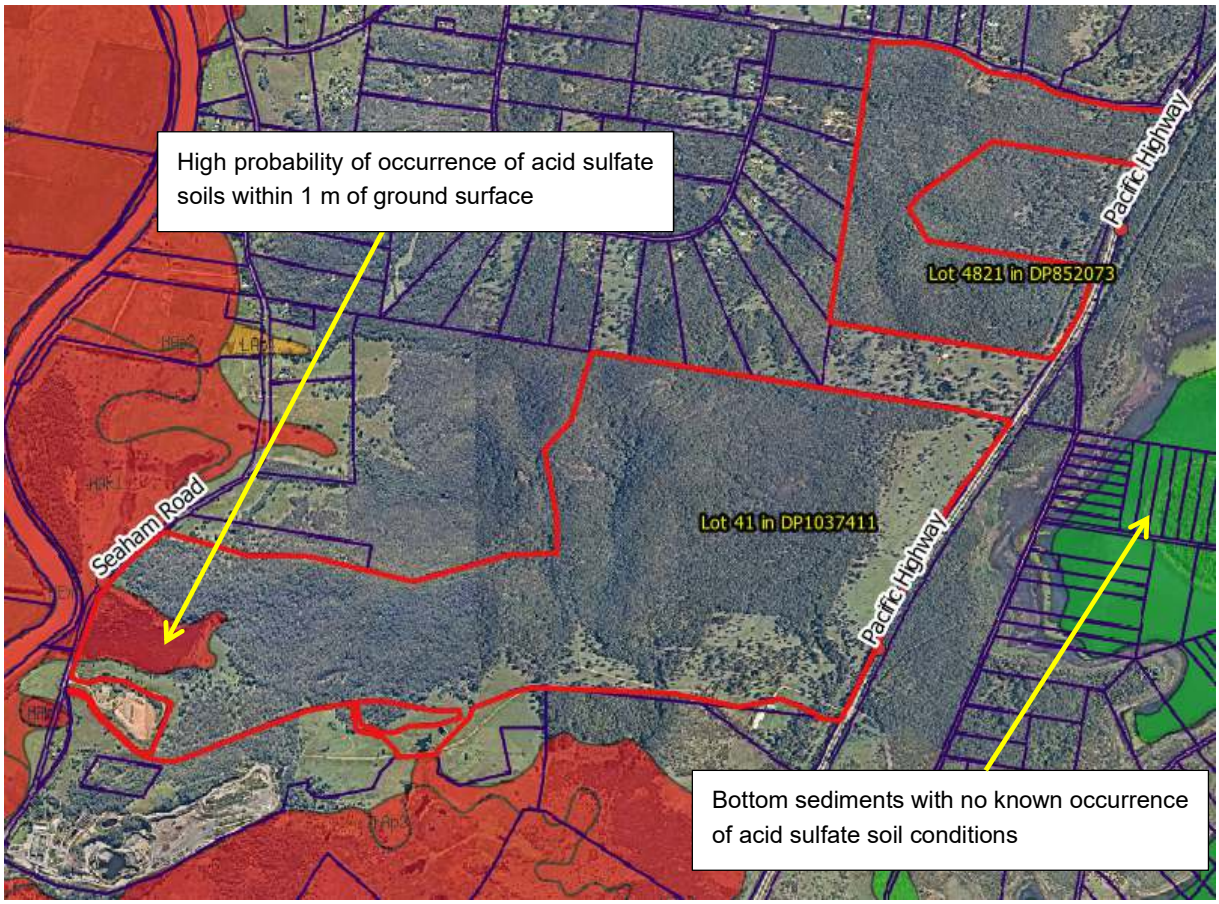


Figure 4: Extract from acid sulfate soil mapping (red – site boundaries)

5. Site History

5.1 Extent of Site History Review

The brief site history review comprised the following:

- Search for historical title deeds;
- Review of selected historical aerial photos;
- Review of available historical information provided by Mr Len Roberts of Myall Coast Archaeology Pty Ltd (undertaken during the DP (2005) investigation);
- Port Stephens Council development application tracker search;

- Registered groundwater bore search;
- NSW Environmental Protection Authority (EPA) register search; and
- Review of previous surface water quality testing by DP.

5.2 Historical Title Search

5.2.1 Historical Site Identity

A historic title deeds search was carried out by Scott Ashwood Pty Ltd, the results of which are provided in Appendix B. Reference should be made to Figure 5 for the location of the historical lots.

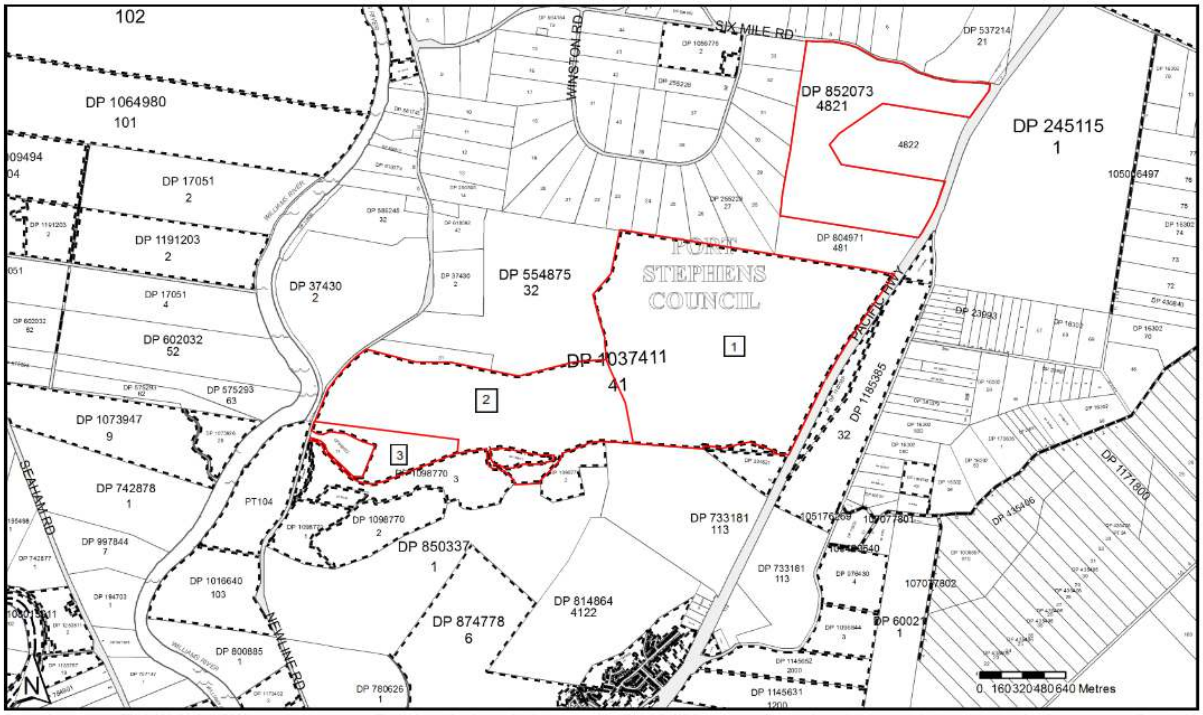


Figure 5: Image showing location of site and referenced areas (red – site boundaries)

The titles history of the areas of the site, as shown in Figure 5, are presented in Table 1 to Table 6, as follows:

- **Lot 41 in DP 1037411**
  - Table 1: Historical Title Search – Lot 41 DP1037411 (Part numbered 1 on Figure 5);
  - Table 2: Historical Title Search – Lot 41 DP1037411 (Part 2 on Figure 5 – excluding Lot 7 DP111433);
  - Table 3: Historical Title Search – Lot 41 DP1037411 (Part 2 on Figure 5 – former Lot 7 DP111433);
  - Table 4: Historical Title Search – Lot 41 DP1037411 (Part 3 on Figure 5);
  - Table 5: Historical Title Search – Whole of subject land

- **Lot 4821 in DP 852073**
  - Table 6: Historical Title Search – Lot 4821 DP852073 (35 Six Mile Road)

5.2.2 Lot 41 DP1037411

Table 1: Historical Title Search – Lot 41 DP1037411 (Part numbered 1 on Figure 5)

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available
10.03.1936 (1936 to 1954)	Eric George Dalyell Richardson (Grazier)
21.10.1954 (1954 to 1961)	Joan Tregenna Richardson (Married Woman)
27.11.1961 (1961 to 1962)	Dominic Francis Cummings (Solicitor) (Trustee for Frost Developments Pty Limited)
27.11.1961 (1961 to 2002)	Frost Developments Pty Limited Now Boral Resources (Country) Pty Limited

Table 2: Historical Title Search – Lot 41 DP1037411 (Part 2 on Figure 5 – excluding Lot 7 DP111433)

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available
10.03.1936 (1936 to 1954)	Eric George Dalyell Richardson (Grazier)
21.10.1954 (1954 to 1961)	Joan Tregenna Richardson (Married Woman)
27.11.1961 (1961 to 1962)	Dominic Francis Cummings (Solicitor) (Trustee for Frost Developments Pty Limited)
27.11.1961 (1961 to 2002)	Frost Developments Pty Limited Now Boral Resources (Country) Pty Limited

Table 3: Historical Title Search – Lot 41 DP1037411 (Part 2 on Figure 5 – former Lot 7 DP111433)

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available
29.10,1969 (1969 to 2002)	Blue Metal & Gravel (North) Pty Limited Now Boral Resources (Country) Pty Limited

This parcel of land was found to formerly be a road, subsequently closed circa 1969.

Table 4: Historical Title Search – Lot 41 DP1037411 (Part 3 on Figure 5)

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available
02.07.1928 (1928 to 1961)	Herbert Hodges (Farmer)
22.09.1961 (1961 to 1962)	Herbert Edward Hodges (Dairy Farmer)
23.05.1962 (1962 to 2002)	Frost Developments Pty Limited Now Boral Resources (Country) Pty Limited

Table 5: Historical Title Search – Whole of subject land

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available
05.06.2002 (2002 to 2012)	Morgan & Banks Developments Pty Limited Mondell Properties Pty Limited
27.07.2012 (2012 to date)	# Kingshill Development No. 1 Pty Limited

# Denotes Current Registered Proprietor

A number of easements and leases are present within the sites, as follows:

- 31.03.1960 (Book 2532 No. 397) Easement for Transmission Line 30.475 wide
- 28.07.1969 (Book 2942 No. 285) Easement for Transmission Line 30.475 wide and variable
- 23.08.1994 (D.P. 839722) Right of Carriageway 20 wide and variable
- 18.07.1995 (D.P. 850337) Easement to Flood variable width
- 18.07.1995 (D.P. 850337) Right of Carriageway 20 wide
- 18.07.1995 (D.P. 850337) Right of Carriageway variable width
- 18.07.1995 (D.P. 850337) Easement for Transmission Line 10 wide and variable
- 25.02.2002 (D.P. 1037411) Right of Carriageway 10 metres wide

Based on a review of the historical titles, the site appears to have been formally used for grazing purposes. A former unused road was purchased by Blue Metal and Gravel (North) Pty Limited, possibly for access to land to the south of the site. The site appears to have been purchased by Frost Developments Pty Limited (now Boral Resources (Country) Pty Limited) in 1961 and 1962, however extractive activities do not appear to have been undertaken on the site with the possible exception of an existing cutting located in the southern area of the site (refer Drawing A1 to A3) in Appendix C.

5.2.3 Lot 4821 DP852073

Table 6: Historical Title Search – Lot 4821 DP852073 (35 Six Mile Road)

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available
16.04.1937 (1937 to 1958)	John Dalyell Richardson (Married Woman)
04.06.1958 (1958 to 1960)	Nancy Jacoba Richardson
09.08.1960 (1960 to 1972)	Hunter District Water Board
24.10.1972 (1972 to 2000)	Adam Pastoral Company Pty Ltd
13.03.2000 (2000 to 2004)	Ian Stephen Charles Eagleton
03.07.2004 (2004 to 2012)	Morgan & Banks Developments Pty Limited Mondell Properties Pty Limited
27.07.2012 (2012 to date)	# Kingshill Development No. 1 Pty Limited

# Denotes Current Registered Proprietor

One easement was identified on the site as follows:

- 16.08.1995 (D.P. 852073) Right of Carriageway 8 wide

Based on a review of the historical titles, the cleared areas of the site appear to have been formally used for grazing purposes. A small area in the northern part of the site appears to have been used for possible extraction activities (refer to possibly former quarry on Drawings A1 to A3 in Appendix C and comments in Section 5.3). The purpose of the former quarry is not known but it is likely that it was used as a source for soil/rock for road construction.

5.3 Review of Historical Aerial Photos

The historical aerial photos reviewed for the assessment are presented in Table 7 together with the main observations. Figure 6 to Figure 11 provides extracts from some of the historical images reviewed as part of the site history assessment (with the approximate site boundary shown in blue).

Table 7: Historical Aerial Photo Review

Year of Photo	Scale (Colour)	Main Observations
1971 (refer Figure 6)	1:35,000 (B & W)	No major development visible within the site. The eastern and southern area of the site is cleared, grassed areas, while the remainder of the site is covered with trees. Some minor extraction activity (quarry?) appears to have occurred within the south-western area of the site and also in the far northern area (refer Figure 6). The Suez landfill facility is visible to the south-west of the site.
1976	1:50,000 (B & W)	Similar to the 1971 image.
1987 (refer Figure 7)	1:35,000 (B & W)	Similar to 1976 aerial photo, although the area of extraction activity in the south-western area of the site appears to be slightly larger.
1993 (refer Figure 8)	1:35,000 (colour)	Similar to 1987 aerial photo. The council (PSC) landfill to the west of the site appears to be in the early stages of filling. A small structure appears visible in the general location of the present riding for the disabled facility to the south-east of the site.
2004 Google Earth	Not to scale (Colour)	Similar to 1993 aerial photo. Riding for the disable shed visible to south-east of site.
June 2005 Google Earth (refer Figure 9)	Not to scale (Colour)	Similar to 2004 Google Earth image. The placement of fill appears to be continuing in the council landfill.
September 2012	Not to scale (Colour)	Similar to 2005 Google Earth image.
October 2016	Not to scale (Colour)	Similar to September 2012 Google Earth image.
December 2017 (refer Figure 10)	Not to scale (Colour)	Similar to October 2016 Google Earth image. Increased filling activity visible in Council landfill.
October 2019 (refer Figure 11)	Not to scale (Colour)	Similar to October 2016 Google Earth image. Council landfill to similar proportions at present day.

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

The results of the historical aerial photo review suggested the general absence of gross contaminating activities within the site. The potential for contamination at the site may, however, include localised illegal dumping. Possible offsite contaminating activities include the Suez land fill and Council landfill to the south-west of the site.

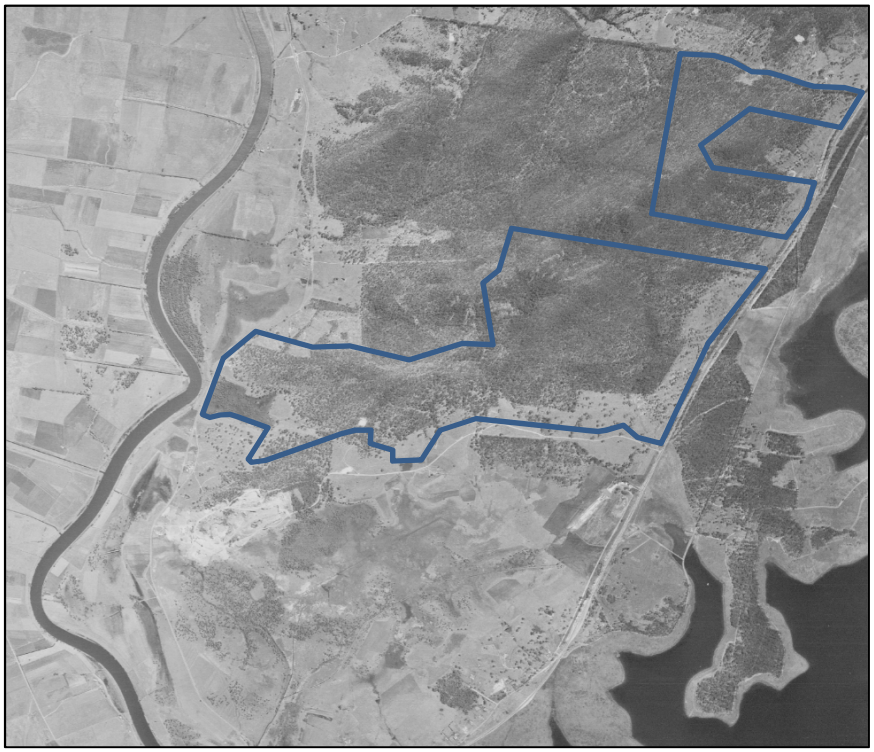


Figure 6: 1971 Aerial photo (blue line is approximate site extents)

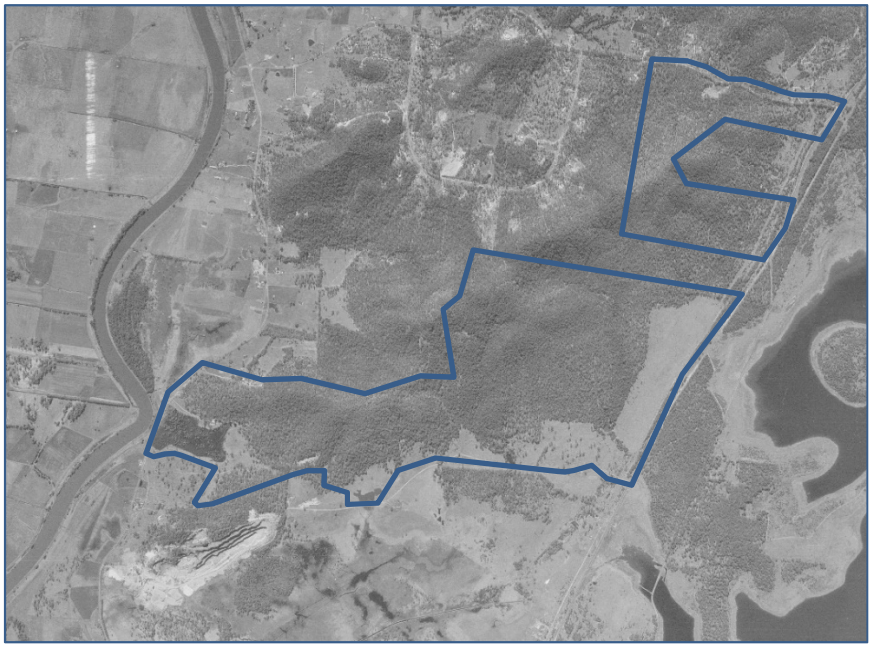


Figure 7: 1987 Aerial photo (blue line is approximate site extents)

Figure 8: 1993 Aerial photo (blue line is approximate site extents)

Figure 9: June 2005 Google Earth Image (blue line is approximate site extents)

Figure 10: December 2017 Google Earth image (blue line is approximate site extents)

Figure 11: October 2019 Google Earth image (blue line is approximate site extents)

5.4 Discussions with Myall Coast Archaeology Pty Ltd

Discussions with Mr Len Roberts of Myall Coast Archaeology in 2005 indicated that past land use in the vicinity of the site was likely to include grazing, timber production, and small scale orchards, vineyards, quarrying and dairying for various lengths of time and success. The exact locations of the above land uses, however, are difficult to establish. Mr Roberts also indicated that the site was likely to be outside the early Raymond Terrace farming areas.

5.5 PSC DA Tracker Search

A search of PSC historical records of Building Applications (BA)/Development Applications (DA) was undertaken and indicated the following DA/BAs have been lodged for the site.

Lot 4821, DP 852073

- septic tank, approved in 1997;
- creation of a two lot subdivision, withdrawn in 1999;
- dam, approved in 2000.
- DA in 2020 for concept development application for Torrens titles subdivision comprising 1900 lots, six mixed-use lots, 1 'local centre', parks and a school site

Lot 41, DP 1037411

- DA in 2020 for concept development application for Torrens titles subdivision comprising 1900 lots, six mixed-use lots, 1 'local centre', parks and a school site;
- DA in 2020 for water reticulation system and sewerage system;
- DA in 2015 for Torrens title subdivision – one into 145 lots;
- DA in 2014 for 144 lot Torrens title subdivision;
- DA in 2014 for 3 lot Torrens title subdivision.

Off-Site (Lot 51, DP 839722)

Preliminary discussion with PSC personnel (DP, 2005) and further review of available data indicated the following information, with respect to the former landfill located over the south-west corner of the site:

- The landfill operated from approximately 1988 to 1998;
- Putrescible waste was disposed at the landfill (i.e. solid waste);
- A waste thickness of up to 5 m is present;
- The landfill is no longer operational, however, it has not been appropriately decommissioned or capped. Capping activities were underway at the time of assessment (refer Figure 12) although details of the capping and decommissioning have not been provided;
- A monitoring program is in place for the landfill.

Figure 12: Image of Council landfill (image date 2 March 2020 by Metromap)

5.6 Review of Registered Groundwater Bores

A groundwater bore search was undertaken as part of the current assessment using the digital NSW registered groundwater bore database and indicated the following:

- No registered groundwater wells on the site;
- Several registered groundwater wells within the surrounding sites as follows:
  - Lot 32, DP 255228 (GW 066683), which is situated to the west of Lot 4821 in the northern part of the site. This well is registered for domestic and stock purposes, was drilled to 35 m depth and recorded a standing water level at 14 m depth.
  - Nine registered groundwater bores around the Suez landfill facility to the south-west of the site (refer Figure 13). These bores were drilled to depths ranging from about 6 m to 23 m depth and registered as monitoring bores. The bores recorded standing groundwater at depths ranging from about 1 m to 11 m. The drillers logs indicated that the bedrock encountered included sandstone, conglomerate and dacite.

A copy of the groundwater bore search data is included in Appendix B.

Figure 13: Aerial image of Suez Facility (south-west of site) with registered groundwater bores

5.7 NSW EPA Search

A review of the NSW EPA public registers indicated the following:

- The site is not on the NSW EPA Contaminated Land Management Register;
- The site is not on the list of contaminated sites notified to NSW EPA; and
- Neither the site nor immediately adjacent sites are on the Protection of the Environment Operations Act list for licences, notices etc.

The adjacent Suez landfill site has been subject to various environmental protection licences, the latest of which is outlined in Notice 1561297 dated March 2020. The licence allows for between 50000 and 100000 tonnes of General Solid Waste (non-putrescible) material to be imported to the site at 330 Newline Road, Raymond Terrace.

Records provided to the EPA by the Department of health, however, indicated that PSC on the 23 March 1989 proposed to operate a landfill on Lot 51, DP 839722. The EPA was unaware of whether the land was actually used as a landfill (refer to previous EPA correspondence in Appendix B).

5.8 Water Quality Testing by DP

DP carried out testing of the surface water across the site (DP, 2005), which included pH and EC testing within various dams and surface water locations. The results are summarised in Table 8 below. The approximate locations of the sampling and testing are shown on Drawings A1 to A3 in Appendix C.

Table 8: Summary of Water Quality Testing undertaken in 2005 by DP

Location	Area of Site	pH (pH units)	EC (µS/cm)
W3	Dam in north- eastern area of Lot 41	6.2	310
W4	Dam in south-eastern area of Lot 41	6.9	314
W5	Dam in northern area of Lot 4822	6.7	156
W10	Downslope of PSC landfill (off-site)	6.7	395
W11	Wetland	4.7	4090
W12	Wetland	5.6	4200
W13	Leachate dam of PSC landfill (off-site)	9.3	1856
W14	Wetland	7.1	4640
W15	Wetland	6.6	4300
W16	Dam immediately upslope of wetland	8.6	390
W17	Wetland	4.6	4460
W20	Williams River (off-site)	7.4	5150

The results indicated the following:

- On-site dam water is generally neutral (pH 6.2 to 7.5) and generally fresh;
- Wetland (eastern site area) was is generally acidic to neutral (pH 4.6 to 7.1) and brackish;
- Leachate dam (Council Landfill) water is alkaline (pH 9.3) and brackish; and
- Williams River water is neutral (pH 7.4) and brackish.

6. Site Condition

6.1 Overall Site

DP has undertaken a number of inspections of the site during the period extending from 2005 to 2020.

The main features and observation made of the overall site during the various inspections are as follows. The approximate locations of the photos are shown in Drawings A1 to A3

- The majority of the site comprises a dense coverage of mature trees (refer Figure 1);

- The lower lying eastern area (parallel to the Pacific Highway) and the southern area (strip of land along the southern boundary) are cleared land with only scattered trees (refer Figure 16 and Figure 20);
- A number of existing access tracks are present throughout the site (refer Figure 17);
- The cleared and semi-cleared areas of the site are generally located within the south-western area and along the southern boundary, as well as in the eastern area of the site in a strip of land of approximately 200 m wide along the Pacific Highway in Lot 41;
- Another cleared area is located in the southern area of the site to the north-west of Riding for the Disabled facility.
- An existing wetland is located in the western area of the site (refer Figure 15);
- Rock outcrops are numerous throughout the site, particularly in the western areas (refer Figure 14, Figure 15 and Figure 18).

Figure 14: Rock outcrop in the western area of the site (near Bore 1005 – July 2020)

Figure 15: View looking south-west towards wetland in western area of site (July 2020)

Figure 16: View looking south from the northern area of the site (July 2020)

Figure 17: View along access track in the northern area of site (July 2020)

Figure 18: Existing cutting in central area of site (exposing sandstone and siltstone)(July 2020)

Figure 19: Typical gully with surface water (July 2020)

Figure 20: Cleared area in southern area of site (July 2020)

There were no obvious indications of gross contamination over the majority of the site. It should be noted, however, that inspection was conducted over the accessible areas of the site. There are a number of areas of the site which were inaccessible during the site inspections by DP.

6.2 Existing Structures

An existing residence is located in the northern part of Lot 4821.

6.3 Other Observations

Areas which contain potential contamination were identified within the site and are described below:

- A former quarry in the northern part of the site (refer Figure 21 to Figure 23);
- A number of different anthropogenic materials were observed within this area, including timber, plastic, asphalt, household waste, metal;
- An area of possible extraction activities in the western part of the site (refer Figure 24), possibly for localised filling activities to the south of the site.

Figure 21: Former quarry in northern part of the site

Figure 22: View of former quarry in northern area of the site

Figure 23: Localised dumping in area of former quarry

Figure 24: Image looking east into area of possible former extraction activities

7. Summary of Subsurface Conditions

The subsurface conditions encountered in the bores/pits undertaken during DP (2020) and previous investigations are provided in detail in DP (2020). Drawings E1 to E3 of DP (2020), in Appendix C, show the extent and number of subsurface investigation locations undertaken by DP on the site to date.

In general, subsurface conditions comprised slopewash (colluvium) and topsoil overlying residual clay and weathered bedrock (either sedimentary or volcanic). The depth to bedrock was generally less than 1 m in the western and southern areas of the site together with the higher elevation areas (tree covered areas). A deeper clay profile was encountered in the pits and bores located within the lower, lying area in the eastern area of the site. In these areas, the depth to rock was generally greater than 2 m. Fill was not encountered in any of the pits or bores undertaken at the site.

No free groundwater was observed within any of the pits or bores while they remained open. It should be noted that groundwater levels are affected by factors such as climatic conditions and soil permeability and will therefore vary with time.

It is noted that there were no obvious indications of gross contamination (ie staining, odours, anthropogenic inclusions) within the former test locations.

8. Potential Contamination

On the basis of the desktop review, available site history information and observations made during the site inspection, the risk of gross contamination within a large portion of the site is considered to be low. A number of localised sources of potential contamination have been identified for the site, as discussed below.

- The former quarry in the northern part of the site (refer Figure 21 to Figure 23), where filling appears to have been imported. The material encountered on the surface included concrete, bricks, timber and sheeting, along with asphalt, the fill in this area may include anthropogenic materials. The former use of mechanical equipment within the quarry may also be a source of potential impacts. Potential contaminants such as asbestos containing material, metals, hydrocarbons and pesticides may be present due to former site activities.
- Fill appears to have been either imported to site, or sourced from excavations within the site to form the dam embankments and internal access roads. Fill materials which may have been imported to site may contain a range of contaminants included TRH, BTEX, PAH, OCP, OPP, PCB and asbestos depending on the source;
- Reported localised site activities associated with possible former site use for timber production, orchards, vineyards, dairy, quarrying. It is noted, however, that these reported landuses pertained to the larger site which was subject to the former assessment DP (2005). Apart from localised quarrying, no obvious indicators of these possible former site uses were observed during the inspections or within the site history review; and
- Possible localised opportunistic dumping in accessible areas of the site.

The off-site land uses which may pose a risk of contamination affecting the site which have been identified are as follows:

- Presence of former Council landfill immediately adjacent to the swamp/wetland over the south-west corner of the site; and
- Presence of Suez landfill to the south of the south-western area of the site.

9. Preliminary Conceptual Site Model

A preliminary Conceptual Site Model (CSM) has been prepared for the investigation area with reference to the National Environment Protection (Assessment of Site Contamination) Measure 1999 amended 2013 Schedule B2, NEPC (2013). The CSM identifies potential contaminant sources and contaminants of concern, contaminant release mechanisms, exposure pathways and potential receptors. It should be noted that this preliminary conceptual site model will need to be revised following subsurface investigation. The preliminary CSM is presented in Table 9 below.

Table 9: Preliminary Conceptual Site Model

Known and Potential Primary Sources	Potential For Contamination and Area Affected	Primary Release Mechanism	Secondary Release Mechanism	Potential Impacted Media	Contaminants of Concern	Exposure Pathway	Potential Receptors	
							Current	Future
Importation of fill for construction of dams and access roads	Low (within all dam embankments and within access roads)	Placement of fill on site	Long-term leaching of contaminants via runoff, rain water infiltration / percolation or exposure/disturbance during proposed development.	Soil, groundwater, surface water	TRH, PAH, BTEX, PCB, OCP, OPP, Metals, Asbestos	Dermal contact, inhalation (dust/ vapours), ingestion	Site workers, visitors, consultants trespassers, vegetation, surface water, wetlands	Earthworks employees, remediation contractors, commercial occupiers, vegetation, trespasser, surface water and groundwater bodies, wetlands
Importation of fill within former quarry in northern area of the site	Moderate (within former quarry area)	Placement of fill on site	Long-term leaching of contaminants via runoff, rain water infiltration / percolation or exposure/disturbance during proposed development.	Soil, groundwater, surface water	TRH, PAH, BTEX, PCB, OCP, OPP, Metals, Asbestos			
Quarry activities - localised leaks from machinery, maintenance of machinery	Low (possibly within former quarry areas)	Leaking from earthworks equipment	Long-term leaching of contaminants via runoff, rain water infiltration / percolation	Soil, groundwater, surface water	TRH, PAH, BTEX, Metals, Asbestos, Oils and grease			

Notes to table: Heavy metals = Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel and Zinc
TPH = Total Petroleum Hydrocarbons BTEX = Benzene, Toluene, Ethyl Benzene and Xylene OCP = Organochlorine Pesticides
OPP = Organophophorus Pesticides PAH = Polyaromatic Hydrocarbons PCB = Polychlorinated Biphenyls

Table 9: Preliminary Conceptual Site Model (continued)

Known and Potential Primary Sources	Potential For Contamination and Area Affected	Primary Release Mechanism	Secondary Release Mechanism	Potential Impacted Media	Contaminants of Concern	Exposure Pathway	Potential Receptors	
							Current	Future
Possible former site use for timber production, orchards, vineyards, dairy	Low (cleared areas)	Application to land	Long-term leaching of contaminants via runoff, rain water infiltration / percolation	Soil, groundwater, surface water	TRH, PAH, BTEX, Metals, Asbestos, Oils and grease	Dermal contact, inhalation (dust/ vapours), ingestion	Site workers, visitors, consultants trespassers, vegetation, surface water, wetlands	Earthworks employees, remediation contractors, commercial occupiers, vegetation, trespasser, surface water and groundwater bodies, wetlands
Localised Illegal Dumping	Low to Moderate (in accessible areas of the site)	Dumping of material	Long-term leaching of contaminants via runoff, rain water infiltration / percolation or exposure/disturbance during proposed development	Soil, groundwater, surface water	TRH, PAH, BTEX, PCB, OCP, OPP, Metals and Asbestos			
Migration of landfill gas from Suez and Council landfill	Low (south-western area of site)	Leachate of gas into site	Long-term leaching of contaminants via migration through subsurface rock and soil profile	Soil	Methane	Inhalation (vapours)		
Leachate or groundwater migration from Suez and Council landfill	Low (south-western area of site)	Leachate or groundwater migration into site	Long-term leaching of contaminants via migration through subsurface rock and soil profile	Soil, groundwater, surface water	Nutrients, heavy metals, TRH, PAH, BTEX, PCB, OCP, OPP	Dermal contact, ingestion		

Notes to table: Heavy metals = Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel and Zinc
TPH = Total Petroleum Hydrocarbons BTEX = Benzene, Toluene, Ethyl Benzene and Xylene OCP = Organochlorine Pesticides
OPP = Organophophorus Pesticides PAH = Polyaromatic Hydrocarbons PCB = Polychlorinated Biphenyls

10. Conclusions

The results of the preliminary site investigation (contamination) for the proposed development of the site indicate the following:

- General absence of potentially contaminating activities across a large portion of the site;
- Fill has been placed within a former quarry within the northern area of the site;
- Possible former (small scale) extraction activities within the south-western part of the site
- Possible presence of small-scale timber production, orchard, vineyard, dairy use based on historical use within the greater site area (locations not known);
- Fill has been placed in a number of existing dams on the site and in some areas within the existing access road alignments; and
- Presence of a former Council (PSC) landfill and currently operating Suez Landfill to the west and south-west of the site.

The results of the PSI indicate that the majority of the site is generally unlikely to contain gross contamination associated with the current or former site activities.

The potential areas of environmental concern are generally localised and associated with near surface impacts (refer Drawing 1), which would be readily addressed through appropriate staged investigation, and remediation (where required). It is noted that intrusive sampling and testing was not conducted for this PSI.

It is considered that the areas of potential contamination identified, once remediated, will be suitable for the proposed land use.

Further targeted contamination assessment, including intrusive investigation within the identified areas of environmental concern together with testing for likely contaminants should be undertaken to assess the possible presence and extent of contamination and requirements for remediation (if any). Site remediation (where required) should be conducted in accordance with a site specific remediation action plan (RAP), if required.

Potential impact from offsite sources were identified and included the PSC landfill and Suez Landfill to the west and south-west of the site. The possible impacts from the landfills include potential gas and leachate migration due to their proximity to the site. It is understood that the landfills have not been appropriately decommissioned or capped.

Further assessment in the area of the site adjacent to the existing landfills should be undertaken with reference to NSW EPA ‘Assessment and management of ground gases’ and also NSW EPA (2016) Environmental Guidelines: Solid Waste Landfills (Second Edition 2016). DP is currently undertaking this assessment.

Based on the above, and with reference to Clause 7 of SEPP 55 (1998), it is considered that the site would be made suitable for the proposed residential development following additional contamination assessment in accordance with contaminated land planning guidelines and remediation of contaminated soils (if encountered) under a site specific remediation action plan (RAP).

11. References

DP. (2005). *Report on Additional Urban Capability Assessment, Proposed Rezoning "Kingshill" Pacific Highway, North Raymond Terrace, Project 31638.* Douglas Partners Pty Ltd.

DP. (2014). *Report on Preliminary Geotechnical Investigation, Proposed Stormwater Option, Kings Hill Development, Pacific Highway, North Raymond Terrace, Project 81502.* Douglas Partners Pty Ltd.

DP. (2015b). *Report on Preliminary Geotechnical Investigation, Proposed Grade Separated Interchange, Kings Hill Development, Pacific Highway, North Raymond Terrace, Project 81502.01.* Douglas Partners Pty Ltd.

DP. (2015d). *Preliminary Geotechnical Information, Proposed Main Access Road, Kings Hill, North Raymond Terrace, Project 81502.04.* Douglas Partners Pty Ltd.

DP. (2017). *Geotechnical Assessment of Rock Type, Kings Hill Development, Kings Hill, North Raymond Terrace, Project 81502.06.* Douglas Partners Pty Ltd.

DP. (2020). *Report on Geotechnical Investigation, Proposed Residential Development, Kings Hill, North Raymond Terrace.* Douglas Partners Pty Ltd.

NEPC. (2013). *National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013.* National Environment Protection Council.

NSW EPA. (2006). *Guidelines for the NSW Site Auditor Scheme 2nd Edition, New South Wales Environmental Protection Authority (EPA) Contaminated Sites.* New South Wales Environmental Protection Authority (EPA) .

NSW EPA. (2020). *Consultants Reporting on Contaminated Land, Contaminated Land Guidelines. New South Wales Environmental Protection Authority (EPA) Contaminated Sites.* New South Wales Environmental Protection Authority (EPA) Contaminated Sites.

SEPP 55. (1998). *Managing Land Contamination, Planning Guidelines SEPP55 - Remeidation of Land.* Department of Urban Affairs and Planning, EPA.

12. Limitations

Douglas Partners (DP) has prepared this report for this project at Lot 4821 in DP852073 and Lot 41 in DP1037411, Kings Hill, North Raymond Terrace with reference to DP's proposal NCL200427 dated 21 July 2020 and acceptance received in an email dated 22 July 2020 by Adam Smith in behalf of PM No 1 Pty Ltd. The work was carried out under DP's Conditions of Engagement. This report is provided for the exclusive use of PM No 1 Pty Ltd for this project only and for the purposes as described in the report. It should not be used by or relied upon for other projects or purposes on the same or other site or by a third party. Any party so relying upon this report beyond its exclusive use and purpose as stated above, and without the express written consent of DP, does so entirely at its own risk and without recourse to DP for any loss or damage. In preparing this report DP has necessarily relied upon information provided by the client and/or their agents.

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

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

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

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

Asbestos has been not detected by observation either on the surface of the site, or in materials sampled. However, building demolition materials, such as concrete, brick, tile, metal, ceramics, were, however, located in above-ground fill in isolated areas of the site, and these are considered as indicative of the possible presence of hazardous building materials (HBM), including asbestos.

Although the sampling plan adopted for this investigation is considered appropriate to achieve the stated project objectives, there are necessarily parts of the site that have not been sampled and analysed. It is therefore considered possible that HBM, including asbestos, may be present in unobserved or untested parts of the site, between and beyond sampling locations, and hence no warranty can be given that asbestos is not present.

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.

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

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

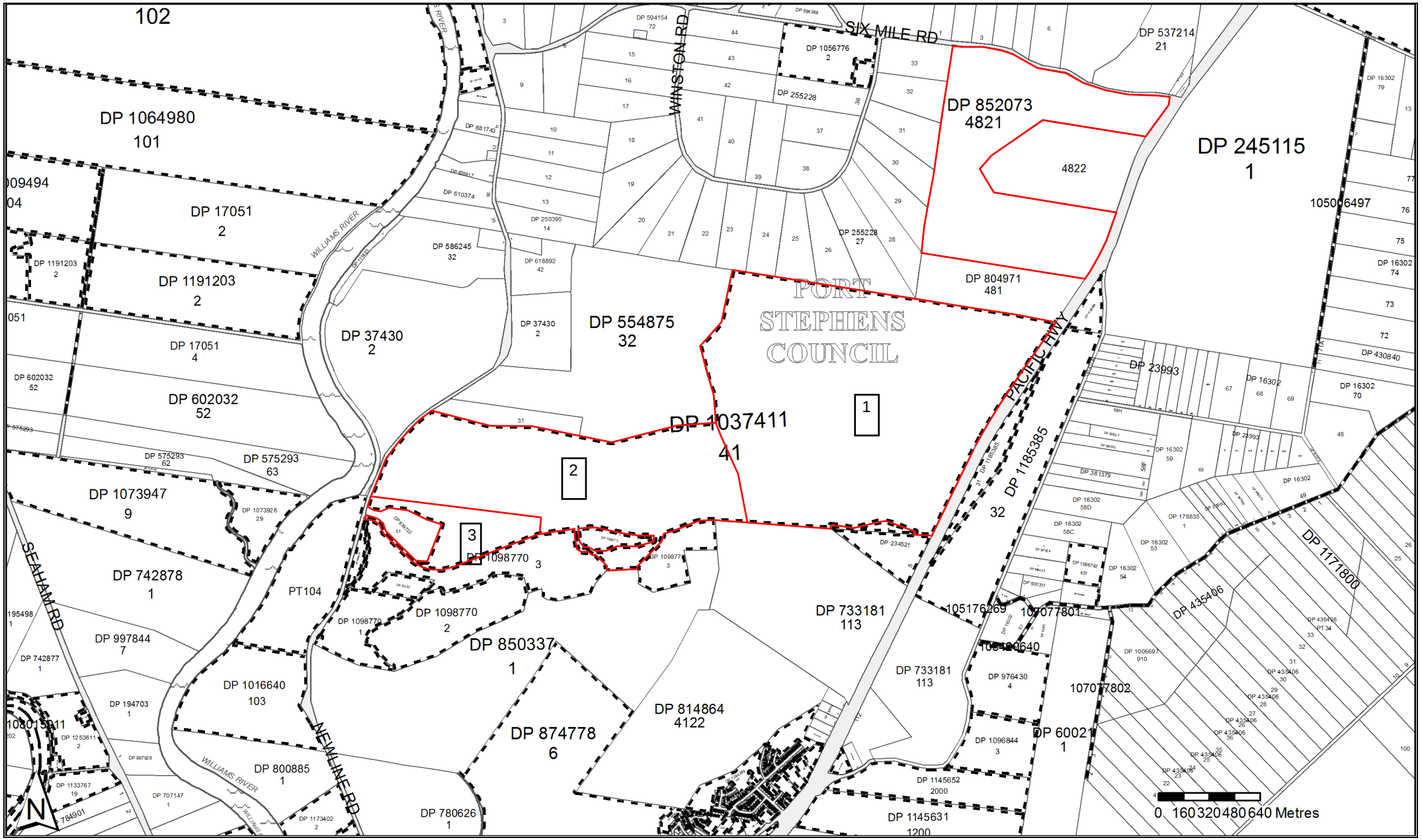
The company will always be pleased to provide engineering inspection services for geotechnical and environmental aspects of work to which this report is related. This could range from a site visit to confirm that conditions exposed are as expected, to full time engineering presence on site.

Appendix B

Historical Data

Cadastral Records Enquiry Report : Lot 41 DP 1037411

Locality : RAYMOND TERRACE
Parish : THORNTON
LGA : PORT STEPHENS
County : GLOUCESTER



This information is provided as a searching aid only.Whilst every endeavour is made to ensure that current map, plan and titling information is accurately reflected, the Registrar General cannot guarantee the information provided. For ALL ACTIVITY PRIOR TO SEPTEMBER 2002 you must refer to the RGs Charting and Reference Maps

PLAN FORM 2

Plan drawing only to appear in this space

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

Signed in accordance with the Corporations Act 2001 by Boral Resources (Country) Pty Ltd ACN 000 187 002

Director

Secretary

Crown Lands Office Approval

PLAN APPROVED ______ Authorised Officer

Land District ______

Paper No. ______

Field Book ______ Pages ______

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 subdivision set out herein

* (Insert subdivision or new road)

* Authorised Person/~~General Manager/Accredited Certifier~~

Consent Authority Port Stephens Council

Date of Endorsement 23-10-2001

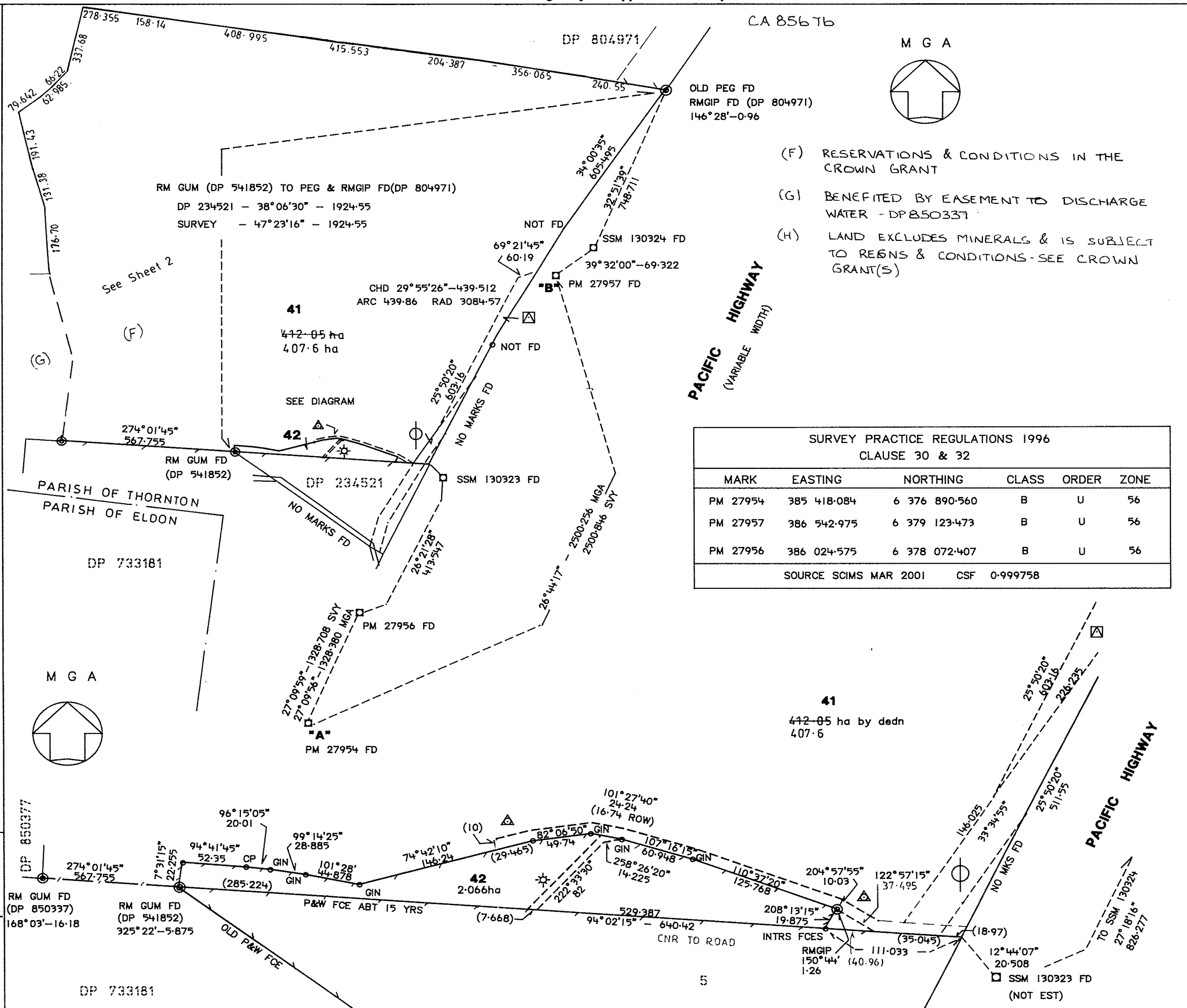
Accreditation no. ______

Subdivision Certificate no. 2001/132

File no. 16-2001-456-1

Note
When the plan is to be lodged electronically in the Land Titles Office it should include a signature in an electronic or digital format approved by the Registrar General
* Delete if inapplicable

SURVEYORS REFERENCE 00-209 CHECKLIST



SURVEY PRACTICE REGULATIONS 1996
CLAUSE 30 & 32

MARK	EASTING	NORTHING	CLASS	ORDER	ZONE
PM 27954	385 418·084	6 376 890·560	B	U	56
PM 27957	386 542·975	6 379 123·473	B	U	56
PM 27956	386 024·575	6 378 072·407	B	U	56

SOURCE SCIMS MAR 2001 CSF 0·999758

[symbol] ~~PROPOSED~~ EASEMENT FOR TRANSMISSION LINE 30·475m WIDE & VAR VIDE DP 234521 & BK 2942 NO 285

[symbol] RIGHT OF CARRIAGEWAY 6 WIDE & VAR

[symbol] RIGHT OF CARRIAGEWAY 10 WIDE

[symbol] – EASEMENT FOR TRANSMISSION LINE 30·475m WIDE VIDE CONV·397 BK 2532

10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	Table of mm	210	220	230	240	260	270	280	290	300	310	320	330	340	350	360	370	380	390

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

(E) **DP1037411**

Registered 25-2-2002

C.A. SEE CERTIFICATE

Title System TORRENS & OLD SYSTEM

Purpose SUBDIVISION

Ref. Map U6372-6#

Last Plan DP234521# (DP37430#) DP850337

PLAN
OF SUBDIVISION OF LOT 4 DP 234521 CONV. BK 2610 No. ~~240~~ 241 & LOT 4 DP 850337

Lengths are in metres Reduction Ratio 1:10000

LGA PORT STEPHENS

Locality RAYMOND TERRACE

Parish THORNTON & ELDON

County GLOUCESTER

This is sheet 1 of my plan in 2 sheets (delete if inapplicable)

I GEOFFREY ALLAN GOLLEDGE
of PO BOX 132 MAITLAND NSW 2320
a surveyor registered under the Surveyors Act 1929, hereby certify that the survey represented in this plan is accurate, has been made in accordance with the Survey Practice Regulation 1996 and was completed on 31-3-2001
Survey relates to LOT 42 & CONNECTIONS

(Signature) Surveyor registered under the Surveyors Act 1929

Zone RURAL
Datum Line Of Azimuth "A"—"B"

Plans used in preparation of survey/compilation
DP 234521 DP 733181 DP 850337
DP 804971

PANEL FOR USE ONLY for statements of intention to dedicate public roads or to create public reserves, drainage reserves, easements restrictions on the use of land or positive covenants.

PURSUANT TO SEC 88B OF THE CONVEYANCING ACT 1919 AS AMENDED IT IS INTENDED TO CREATE

1. RIGHT OF CARRIAGEWAY 10 WIDE

2. RIGHT OF CARRIAGEWAY 6 WIDE & VAR

"BK 2942 NO 285" ADDED TO [symbol] NOTIFICATION VIDE 2012-277 22.5.2012

PLAN FORM 3 — To be used in conjunction with Plan Form 2 — WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

DP1037411

Registered: 25-2-2002

This is sheet 2 of my plan in 2 sheets dated 31-3-2001

Surveyor registered under Surveyors Act 1929

This is sheet 2 of the plan of 2 sheets covered by subdivision certificate No. 2001/130 of 23-10-2001

Authorised Person/~~General Manager~~/~~Accredited Certifier~~

For use where space is insufficient in any panel on Plan Form 2.

SHORT LINE TABLE	
No	DISTANCE
1	3·295
2	25·555
3	23·805
4	25·555
5	11·040
6	38·490
7	25·810
8	19·975
9	36·740
10	34·295
11	40·810
12	46·000
13	57·785
14	30·740
15	30·740
16	30·740
17	3·000
18	23·925
19	30·770
20	32·230
21	29·930
22	34·800
23	29·670
24	48·170
25	18·030
26	35·580
27	52·100
28	14·155
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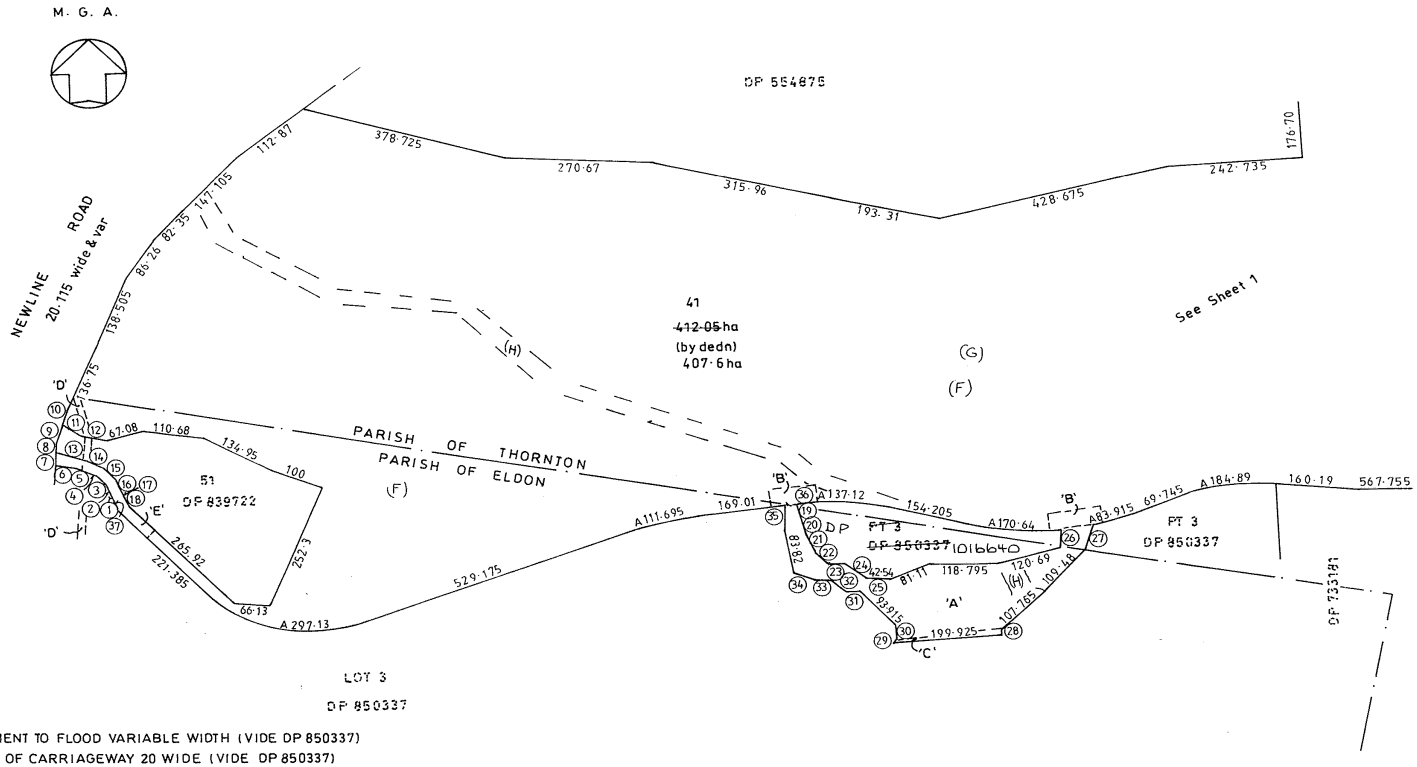
36	24·095
37	29·240



'A' EASEMENT TO FLOOD VARIABLE WIDTH (VIDE DP 850337)
'B' RIGHT OF CARRIAGEWAY 20 WIDE (VIDE DP 850337)
'C' RIGHT OF CARRIAGEWAY VARIABLE WIDTH (VIDE DP 850337)
'D' EASEMENT FOR TRANSMISSION LINE 10 WIDE & VAR.(VIDE DP 850337)
'E' RIGHT OF CARRIAGEWAY 20 WIDE & VARIABLE (VIDE DP 839722)

Reduction Ratio 1: 6000

Plan Drawing only to appear in this space

SURVEYOR'S REFERENCE: 00-209

PLAN FORM 2

Plan Drawing only to appear in this space

*OFFICE USE ONLY

DP 852073

Y002AIA

SIGNATURE AND SEALS ONLY.

The COMMON SEAL of ADAM PASTORAL COMPANY PTY. LTD was hereto affixed in pursuance of a resolution of the Board of Directors in the presence of

DIRECTOR

SECRETARY

SCHEDULE of SHORT BOUNDARIES

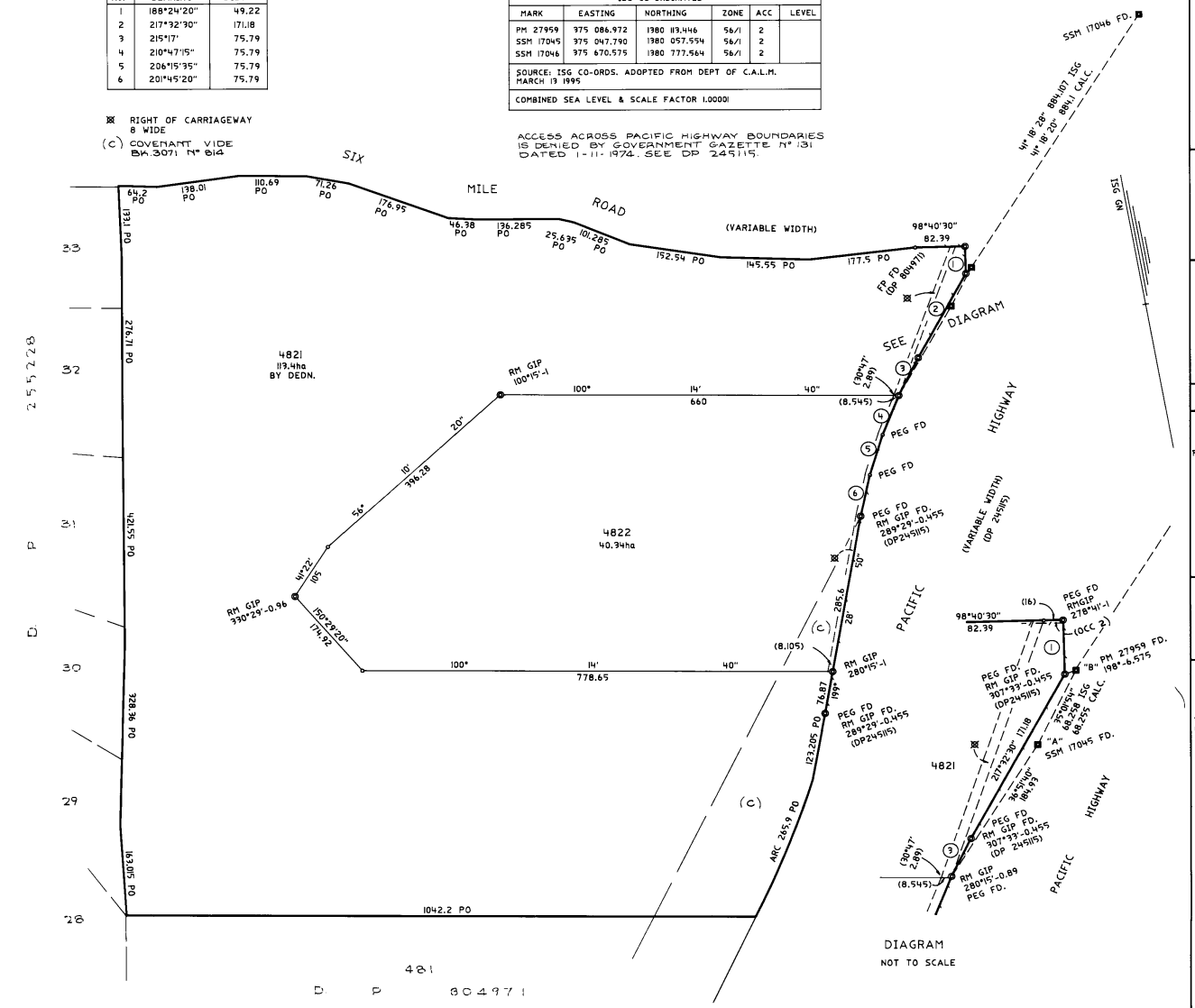
No.	BEARING	DIST
1	188°24'20"	49.22
2	217°32'30"	171.18
3	215°17'	75.79
4	210°47'15"	75.79
5	206°15'35"	75.79
6	201°45'20"	75.79

SURVEY PRACTICE REGULATIONS 1990: CLAUSE 92(2) ISG CO-ORDINATES					
MARK	EASTING	NORTHING	ZONE	ACC	LEVEL
PM 27959	375 086.972	1380 113.446	56/1	2	
SSM 17045	375 047.790	1380 057.554	56/1	2	
SSM 17046	375 670.575	1380 777.564	56/1	2	
SOURCE: ISG CO-ORDS. ADOPTED FROM DEPT OF C.A.L.M. MARCH 13 1995					
COMBINED SEA LEVEL & SCALE FACTOR 1.00001					

⊠ RIGHT OF CARRIAGEWAY 8 WIDE

(c) COVENANT VIDE BK 3071 Nº 814

ACCESS ACROSS PACIFIC HIGHWAY BOUNDARIES IS DENIED BY GOVERNMENT GAZETTE Nº 131 DATED 1-11-1974. SEE DP 245115.



Crown Lands Office Approval

AN APPROVED .....
Authorised Officer
Land District .....
Paper No. .....
Field Book ..... pages .....

Council's Certificate

sreby certify that –

(a) the requirements of the Local Government Act, 1919 (other than the requirements for the registration of plans), and

*(b) the requirements of † ~~Part 6 Division 2 of the Water Board Act 1994~~ or † Part 5 Division 7 of the Hunter Water Board (Corporatisation) Act 1991,

ve been complied with by the applicant in relation to the
iposed subdivision
sert "new road", "subdivision" or "consolidated lot") set out herein
bdivision No. 95/98
te 10.8.95
gnature)
General Manager/Authorised Person
uncil File No. T.1408/94

*This part of certificate to be deleted where the application is only for consolidated lot or the opening of a new road or where the land to be bdivided is wholly outside the areas of operations of the Water ard and the Hunter Water Corporation Ltd.

elete if inapplicable

URVEYOR'S REFERENCE: 94467/1 'CHECK LIST'

Registered: 16.8.1995

C.A. Nº 9598 OF 10.8.1995

Title System: TORRENS

Purpose: SUBDIVISION

Ref. Map: PARISH *

Last Plan: DP 804971 (DP 234921) *

PLAN OF SUBDIVISION OF LOT 482 IN DP 804971

Lengths are in metres. Reduction Ratio 1.5000

LGA PORT STEPHENS

Locality: EAGLETON

Parish: THORNTON

County: GLOUCESTER (48)

This is sheet 1 of my plan in sheets.
(Delete if inapplicable).

I, BRIAN J. MOTT

of ATKINSON & TATTERSALL PTY LTD P.O.BOX 54 RAYMOND TERRACE 2324.

a surveyor registered under the Surveyors Act, 1929, as amended, hereby certify that the survey represented in this plan EXCEPT LOT 4821 is accurate and has been made in accordance with the Survey Practice Regulation 1990 and was completed on

JUNE 5 1995

Signature Mott

Surveyor registered under Surveyors Act, 1929, as amended. Datum Line of Azimuth. "A" – "B"

#insert date of survey.

Plans used in preparation of survey/compilation.

D.P 225228 D.P 245115
D P 804971
D P 247953
D P 537214
D P 226853

PANEL FOR USE ONLY for statements of intention to dedicate public roads, to create public reserves, drainage reserves, easements, restrictions on the use of land or positive covenants.

PURSUANT TO SEC 88B OF THE CONVEYANCING ACT 1919-1964 IT IS INTENDED TO CREATE:-

1) RIGHT OF CARRIAGEWAY 8 WIDE

2) RESTRICTION AS TO USER

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 Table of mm 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

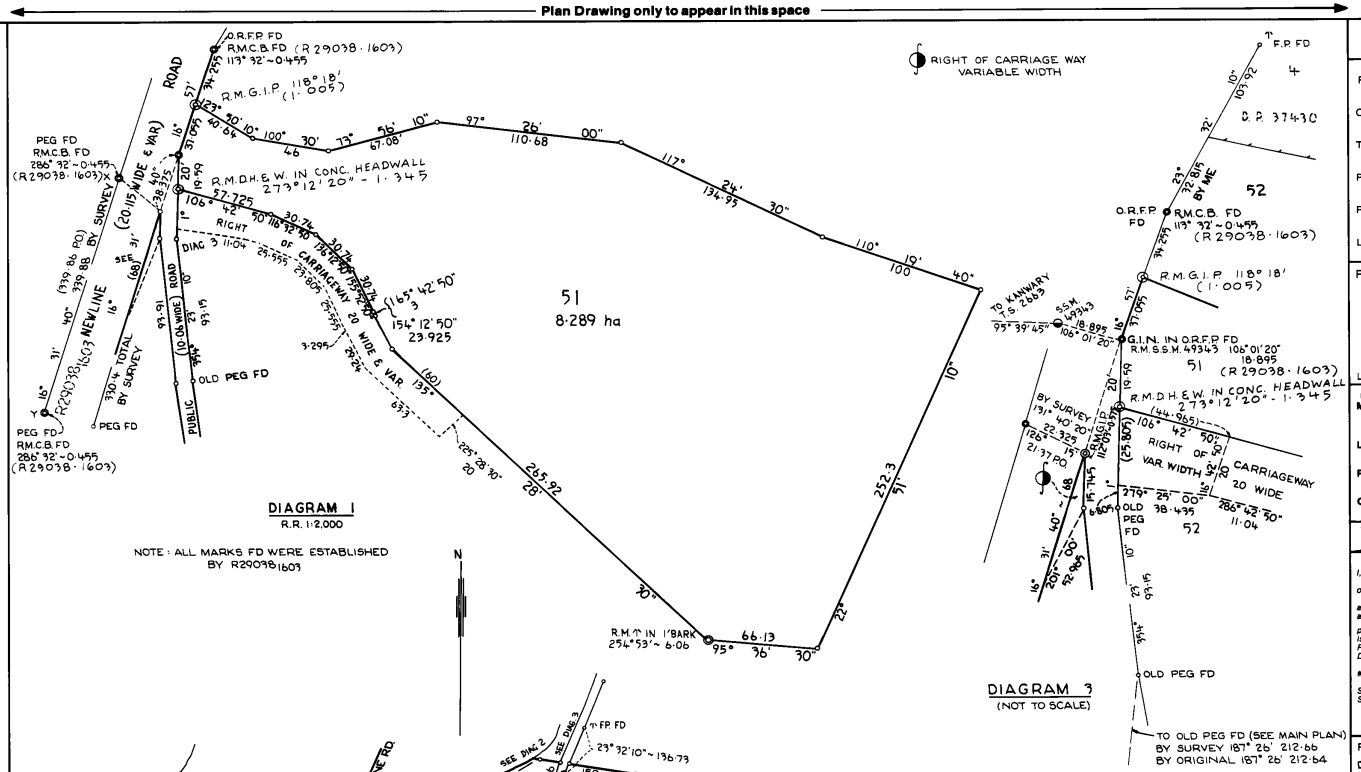
PLAN FORM 2

Plan Drawing only to appear in this space

*OFFICE USE ONLY

DP 839722

SIGNATURE AND SEALS ONLY.



Crown Lands Office Approval

IN APPROVED .....
Authorised Officer
Land District .....
Paper No. .....
Field Book ..... pages .....

Council Clerk's Certificate

reby certify that —
(a) the requirements of the Local Government Act, 1919 (other than the requirements for the registration of plans), and
(b) the requirements of section 34B of the [redacted] Hunter District Water, Sewerage, and Drainage Act, 1938, as amended
e been complied with by the applicant in relation to the
posed Subdivision
ert "new road", "subdivision" or "consolidated lot") set out herein
odivision No. 89/23
e 29th March 1989
ignature) .....
Deputy Council Clerk
uncil File No. S2/1/88/54/7293
This part of certificate to be deleted where the application is only for a solidated lot or the opening of a new road or where the land to be divided is wholly outside the areas of operations of the Metropolitan ter Sewerage and Drainage Board and the Hunter District Water ord.
Delete if inapplicable.

SURVEYOR'S REFERENCE: 87/8 M·P·D·

Registered: 23·8·1994
C.A: NO. 89/23 OF 29·3·1989
Title System: OLD SYSTEM
Purpose: SUBDIVISION
Ref. Map: U6372 - 6 #
Last Plan: D.P. 37430 #

PLAN OF SUBDIVISION OF LOT 5 D.P. 37430

Lengths are in metres. Reduction Ratio 1: 8000

L·G·A.
Mun./Shire City: PORT STEPHENS
Locality: RAYMOND TERRACE
Parish: ELDON
County: GLOUCESTER

This is sheet 1 of my plan in sheets. (Delete if inapplicable).

I, DONALD GEORGE BEGG
of 41 VICTORIA ST, EAST MAITLAND
a surveyor registered under the Surveyors Act, 1929, as amended, hereby certify that the survey represented in this plan WITH RESPECT TO LOT 51 ONLY is accurate and has been made in accordance with the Survey Practice Regulations, 1933 and any special requirements of the Department of Lands, and was completed on
20TH OCTOBER 1988
Signature D. Begg
Surveyor registered under the Surveyors Act, 1929, as amended.
Datum Line of Azimuth: X–Y
insert date of survey.

Plans used in preparation of survey/compilation.
D.P. 37430 R29038 1603

PANEL FOR USE ONLY for statements of intention to dedicate public roads or to create public reserves, drainage reserves, easements or restrictions as to user.

PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT, 1919, IT IS INTENDED TO CREATE
1) RIGHT OF CARRIAGEWAY 20 WIDE & VARIABLE.
2) RIGHT OF CARRIAGEWAY VARIABLE WIDTH.
3) RESTRICTIONS AS TO USER.

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 Table of mm 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

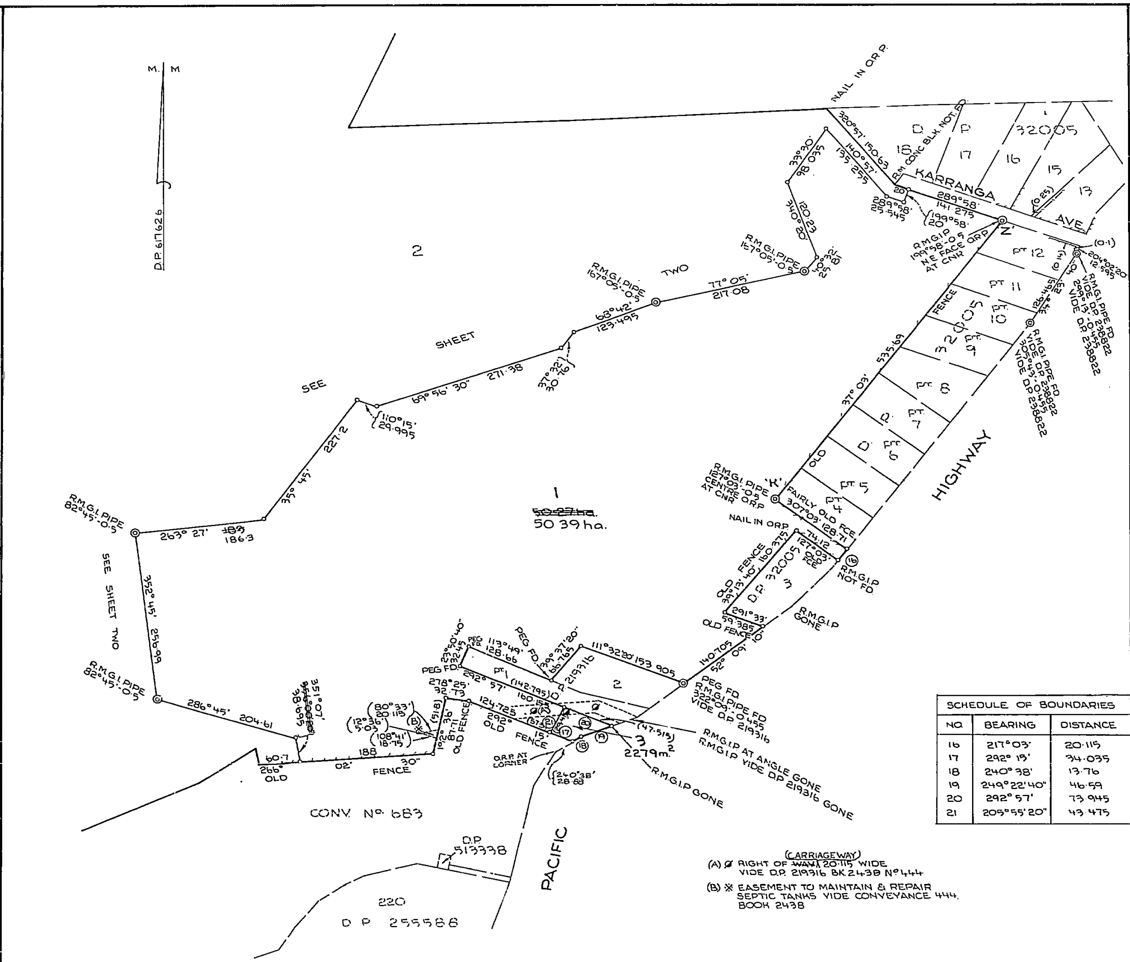
PLAN FORM 2

Plan Drawing only to appear in this space

* OFFICE USE ONLY

Signatures and seals only.

R. C. Blanch



SCHEDULE OF BOUNDARIES		
NO.	BEARING	DISTANCE
16	217°03'	20·115
17	292° 15'	34·035
18	240° 38'	13·76
19	249°22'40"	46·59
20	292° 57'	73·945
21	205°55'20"	43·475

(A) Ø RIGHT OF ~~WAY~~ (CARRIAGEWAY) 20·115 WIDE VIDE D.P. 219316 BK. 2438 No 444

(B) ※ EASEMENT TO MAINTAIN & REPAIR SEPTIC TANKS VIDE CONVEYANCE 444, BOOK 2438

D.P. 617626
SUBSTITUTED PLAN

Registered: 7-1-1982.

C.A.: NO. 81/20 OF 4-9-1981

Title System: OLD SYSTEM

Purpose: P.A. 55868 & SUBDIVISION

Ref. Map: PORT STEPHENS SH.21

Last Plan: D.P. 219316 * D.P. 37430 *

PLAN OF SUBDIVISION OF LAND IN CONV. 444 BOOK 2438

Reduction Ratio 1: 4000
Lengths are in metres.

Mun./Shire ~~City~~ PORT STEPHENS

Locality: RAYMOND TERRACE

Parish: ELDON

County: GLOUCESTER

This is sheet 1 of my plan in 2 sheets.
(Delete if inapplicable).

BEVAN LESLIE ASHER of 52 FREDERICK ST., ROCKDALE. 2216 a surveyor registered under the Surveyors Act, 1929, as amended, hereby certify that the survey represented in this plan is accurate and has been made *~~(1) by me~~ (2) under my immediate supervision in accordance with the Survey Practice Regulations, 1933, and was completed on † 30 9 81

Signature B L Asher

Surveyor registered under Surveyors Act, 1929, as amended.
Datum Line of Azimuth. 'Z' – 'K'
*Strike out either (1) or (2). †Insert date of survey.

Panel for use only for statements of intention to dedicate public roads or to create public reserves, drainage reserves, easements or restrictions as to user.

AMENDMENTS & ADDITIONS MADE IN RGO AT SURVEYORS REQUEST. 14-12-1981

SURVEYOR'S REFERENCE: 4704

CN 003H2C

DP 617626 1/5

Council Clerk's Certificate

I hereby certify that –

(a) the requirements of the Local Government Act, 1919 (other than the requirements for the registration of plans), and

*(b) the requirements of section 34B of the ~~†Metropolitan Water, Sewerage and Drainage Act, 1924, as amended.~~ †Hunter District Water, Sewerage, and Drainage Act, 1938, as amended

have been complied with by the applicant in relation to the proposed SUBDIVISION
(Insert "new road", "subdivision" or "consolidated lot") set out herein

Subdivision No. 81/20

Date 4·9·81

(Signature) ......
Council Clerk

*This part of certificate to be deleted where the application is only for a consolidated lot or the opening of a new road or where the land to be subdivided is wholly outside the areas of operations of the Metropolitan Water Sewerage and Drainage Board and the Hunter District Water Board.
†Delete if inapplicable.

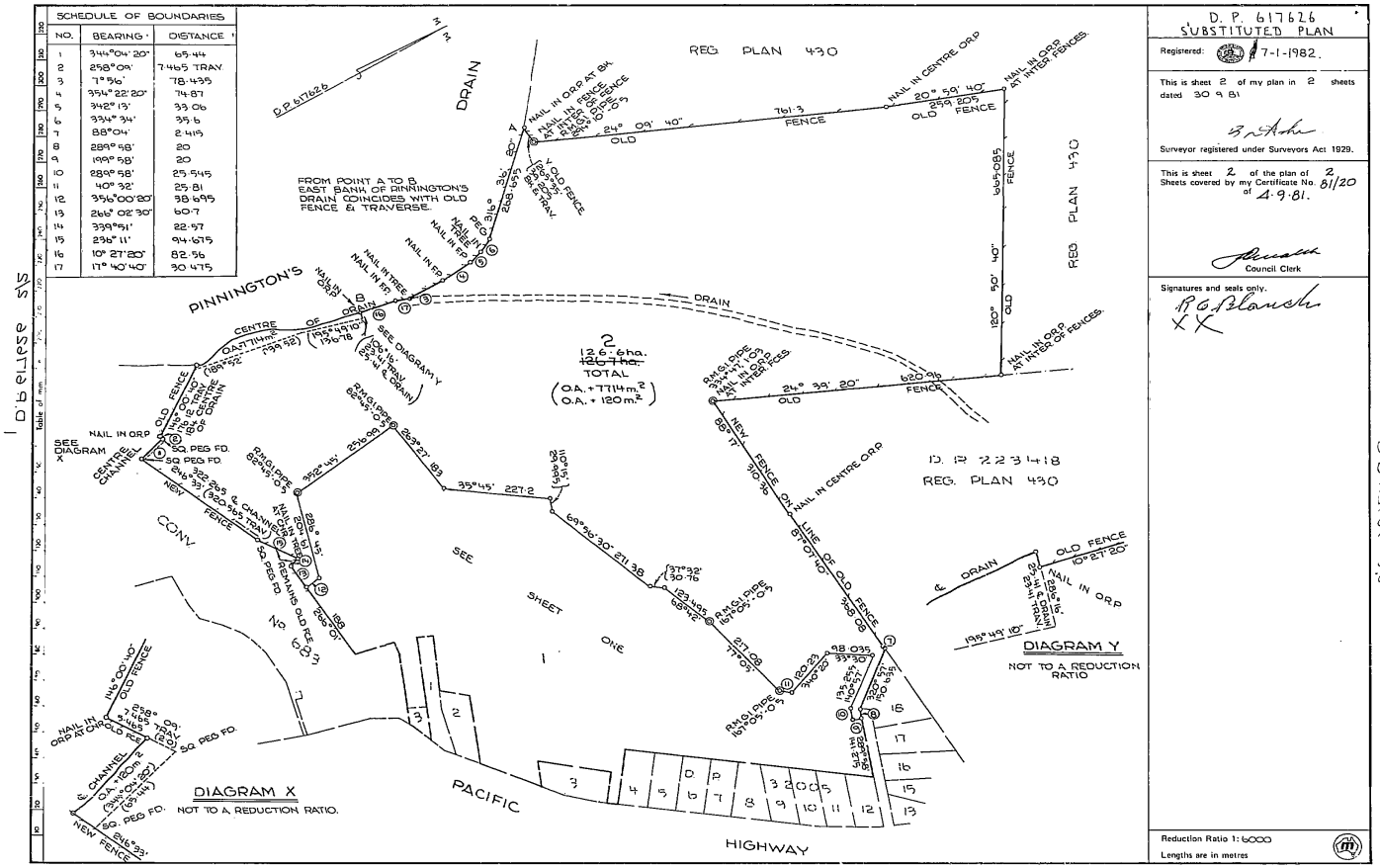
Table of mm

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

I, Bruce Richard Davies, Under Secretary for Lands and Registrar General for New South Wales, certify that this negative is a photograph made as a permanent record of a document in my custody this day.

8th January, 1982

PLAN FORM 3 To be used in conjunction with Plan Form 2 WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION • OFFICE USE ONLY



D.P. 617626 SUBSTITUTED PLAN

Registered: 7-1-1982.

This is sheet 2 of my plan in 2 sheets dated 30.9.81

Surveyor registered under Surveyors Act 1929.

This is sheet 2 of the plan of 2 Sheets covered by my Certificate No. 81/20 of 4.9.81.

Council Clerk

Signatures and seals only.

Reduction Ratio 1:6000

Lengths are in metres

Plan Drawing only to appear in this space

SURVEYOR'S REFERENCE: 4704

I, Bruce Richard Davies, Under Secretary for Lands and Registrar General for New South Wales, certify that this negative is a photograph made as a permanent record of a document in my custody this day.

8th January, 1982

11153161

NEW SOUTH WALES
Seventy five cents
STAMP DUTY
SYDNEY, N.S.W.

[redacted]f New South Wales

No. 1969/1771

Vol. 11153 Fol. 161
Registered 29-10-1969
Registrar General.

(Page 1) Vol. 11153 Fol. 161

GRANT UPON PURCHASE OF UNNECESSARY ROAD

(Under the Public Roads Act, 1902)

CANCELLED

ELIZABETH the SECOND, by the Grace of God of the United Kingdom, Australia and her other Realms and Territories Queen, Head of the Commonwealth, Defender of the Faith:—
To All to whom these Presents shall come, Greeting:—

SEE AUTO FOLIO

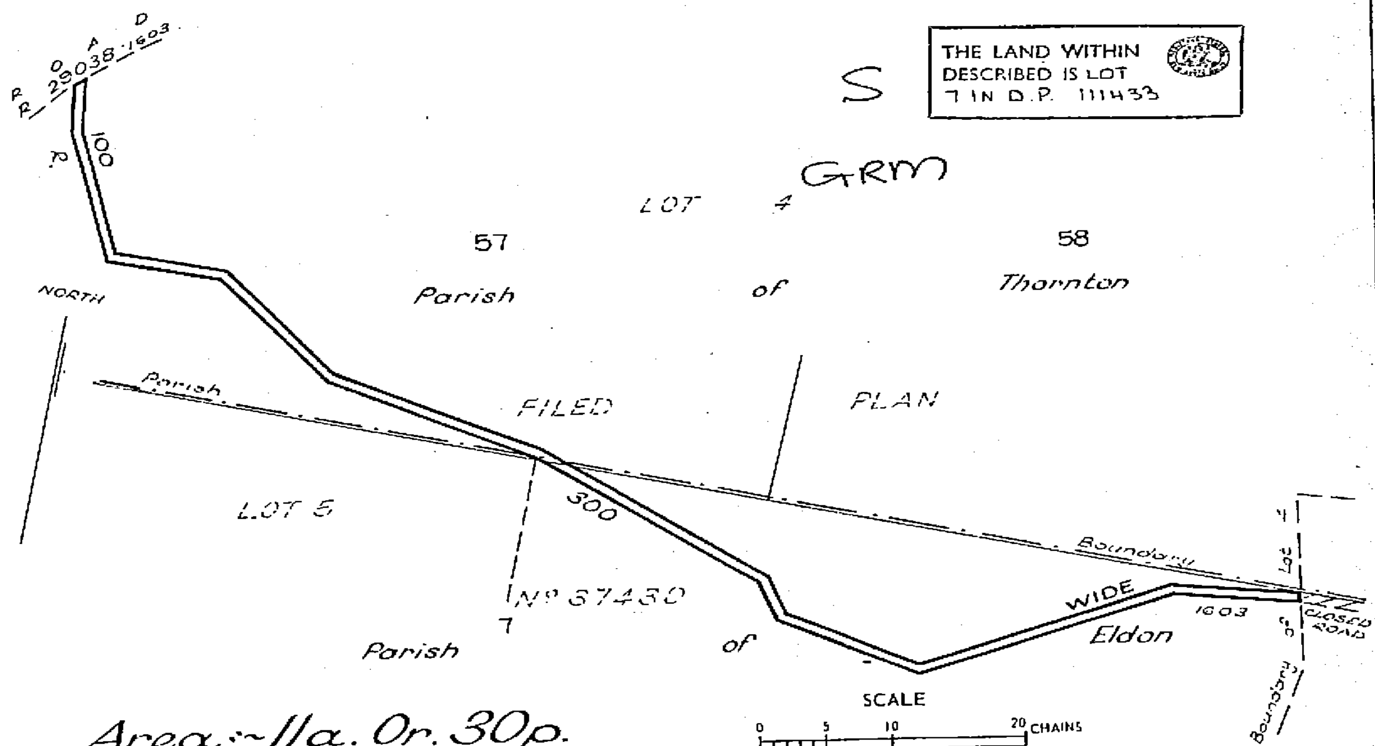
Whereas BLUE METAL & GRAVEL (NORTH) PTY. LIMITED

(hereinafter called the GRANTEE) being the owner of land adjoining the land hereinafter described and intended to be hereby granted (formerly a road which was duly closed in accordance with the provisions of the Public Roads Act, 1902) agreed to have such land granted to it upon payment of the sum of two hundred and twenty four dollars being the value thereof agreed upon between Our Minister for Lands and the GRANTEE AND WHEREAS the said sum has been duly paid and all things required by law to be done to entitle the GRANTEE to a Grant of the fee simple of the said land Subject to the Reservations and Exceptions hereinafter contained have been done and performed NOW THESE PRESENTS WITNESS That in consideration of the premises WE DO HEREBY GRANT unto the GRANTEE Subject to the Reservations and Exceptions hereinafter contained ALL THAT parcel of land containing by admeasurement eleven acres thirty perches be the same more or less situated in the County of Gloucester Parishes of Eldon and Thornton Being a closed part of the road within portion 57 in the Parish of Thornton and portion 7 in the Parish of Eldon as shown in plan catalogued No. R.300-1603 in the Department of Lands

17.

S

THE LAND WITHIN DESCRIBED IS LOT 7 IN D.P. 111433



GRM

Area :- 11a. 0r. 30p.

As per Plan hereon TO HOLD unto the GRANTEE in fee simple PROVIDED NEVERTHELESS AND WE DO HEREBY RESERVE AND EXCEPT unto Us Our Heirs and Successors all minerals which the said Land contains with full power and authority for Us Our Heirs and Successors and such person or persons as shall from time to time be authorised by Us or Them to enter upon the said Land and to search for mine dig and remove the said minerals AND ALSO all such parts and so much of the said Land as may hereafter be required for public ways in over and through the same to be set out by Our Governor for the time being of Our said State or some person by him authorised in that respect with full power for Us Our Heirs and Successors and for Our Governor as aforesaid by such person or persons as shall be by Us Them or him authorised in that behalf to make and conduct all such public ways And the right of full and free ingress egress and regress into out of and upon the said Land for the several purposes aforesaid or any of them IN TESTIMONY WHEREOF We have caused this Our Grant to be Sealed with the Seal of Our said State

Witness Our Governor of Our State of New South Wales and its Dependencies in the Commonwealth of Australia, at Sydney in Our said State, this seventeenth day of October in the eighteenth year of Our Reign and in the year of Our Lord one Thousand nine hundred and sixty nine

A. R. Cutler
Governor

P 173

FOR ENDORSEMENTS SEE PAGE 2

V. C. N. BLIGHT, GOVERNMENT PRINTER

Vol. 11153 Fol 161

BF 111433 Dept in OPI

SCHEDULE OF REGISTERED PROPRIETORS

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar-General

SCHEDULE OF ENCUMBRANCES ETC.

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar-General	CANCELLATION		

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR-GENERAL ARE CANCELLED

Historical Title

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
29/7/2020 6:37PM

FOLIO: 7/111433

First Title(s): SEE PRIOR TITLE(S)
Prior Title(s): VOL 11153 FOL 161

Recorded	Number	Type of Instrument	C.T. Issue
21/8/1988		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
18/11/1988		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
23/11/1988		AMENDMENT: PARISH-COUNTY	
14/6/1995	O303107	CHANGE OF NAME	
18/7/1995	DP850337	DEPOSITED PLAN	FOLIO CANCELLED

*** END OF SEARCH ***

Received: 29/07/2020 18:37:41

Historical Title

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
29/7/2020 6:33PM

FOLIO: 52/839722

First Title(s): OLD SYSTEM
Prior Title(s): CA58482

Recorded	Number	Type of Instrument	C.T. Issue
25/8/1994	CA58482	CONVERSION ACTION	FOLIO CREATED EDITION 1
18/7/1995	DP850337	DEPOSITED PLAN	FOLIO CANCELLED

*** END OF SEARCH ***

3221 Pacific Highway, Kings Hill PRINTED ON 29/7/2020

Received: 29/07/2020 18:34:06

Historical Title

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
28/7/2020 11:29AM

FOLIO: 4/850337

First Title(s): OLD SYSTEM VOL 11153 FOL 161
Prior Title(s): 7/111433 52/839722
CA58709

Recorded	Number	Type of Instrument	C.T. Issue
19/7/1995	CA58709	CONVERSION ACTION	FOLIO CREATED EDITION 1
16/11/1995	O686127	REQUEST	EDITION 2
24/11/1995	O716330	DEPARTMENTAL DEALING	EDITION 3
14/9/2000	7089785	DEPARTMENTAL DEALING	
25/2/2002	DP1037411	DEPOSITED PLAN	FOLIO CANCELLED

*** END OF SEARCH ***

3221 Pacific Highway, Kings Hill PRINTED ON 28/7/2020

Historical Title

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
28/7/2020 11:29AM

FOLIO: 41/1037411

First Title(s): VOL 11153 FOL 161 OLD SYSTEM
Prior Title(s): 4/850337 BK 2610 NO 241

Recorded	Number	Type of Instrument	C.T. Issue
25/2/2002	DP1037411	DEPOSITED PLAN	FOLIO CREATED EDITION 1
25/2/2002	CA85676	CONVERSION ACTION	
5/6/2002	8660388	TRANSFER	
5/6/2002	8660390	MORTGAGE	EDITION 2
9/12/2003	AA236206	DISCHARGE OF MORTGAGE	EDITION 3
13/3/2004	AA485139	MORTGAGE	EDITION 4
5/11/2004	AB75382	DEPARTMENTAL DEALING	
21/3/2012	AG881085	DEPARTMENTAL DEALING	
4/4/2012	AG912393	REQUEST	
17/5/2012	AG991425	DEPARTMENTAL DEALING	
24/5/2012	AH6375	CAVEAT	
27/7/2012	AH139779	DISCHARGE OF MORTGAGE	
27/7/2012	AH139780	TRANSFER	EDITION 5
5/11/2019	AP655670	REQUEST	EDITION 6

*** END OF SEARCH ***

3221 Pacific Highway, Kings Hill PRINTED ON 28/7/2020

Received: 28/07/2020 11:28:58

Form: 01T
Release: 2
www.lpi.nsw.gov.au

(2)

TRANSFER

New South Wales
Real Property Act 1900

8660388H

PRIVACY NOTE: this information is legally required and will become part of the public record

STAMP DUTY Office of State Revenue use only

NEW SOUTH WALES DUTY
30-05-2002 0000997175-001
SECTION 18(2)
DUTY $ ********1.00

(A) **TORRENS TITLE** FOLIO IDENTIFIER 41/1037411 AND 51/839722

(B) **LODGED BY**

Delivery Box	Name, Address or DX and Telephone	CODES
623K.	Murphy & Mahoney.	T
	Reference: NJM	TW (Sheriff)

(C) **TRANSFEROR** BORAL RESOURCES (COUNTRY) PTY. LIMITED ACN 000 187 002

(D) **CONSIDERATION** The transferor acknowledges receipt of the consideration of $ 3,100,000.00 and as regards

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

(F) **SHARE TRANSFERRED**

(G) Encumbrances (if applicable):

(H) **TRANSFEREE** MORGAN & BANKS DEVELOPMENTS PTY. LIMITED AS TO 75/100 SHARE ACN 097 945 214
AND
MONDELL PROPERTIES PTY. LIMITED AS TO 25/100 SHARE ACN 098 060 256

(I) **TENANCY:** TENANTS IN COMMON

(J) **DATE**

I CERTIFY THAT 41/1037411 IS THE SUBDIVISION OF WHICH ISSUED FROM THE 4/839722 AND G.L. TOLTZ SOLICITOR NEUTRAL BAY

Certified correct for the purposes of the Real Property Act 1900 and executed on behalf of the corporation named below by the authorised person(s) whose signature(s) appear(s) below pursuant to the authority specified.
Corporation:
Authority:

BORAL RESOURCES (COUNTRY) PTY LIMITED A.C.N. 000 187 002 Common Seal

Signature of authorised person: See Annexure
Name of authorised person: Graham B. Faber
Office held: Secretary

Signature of authorised person:
Name of authorised person: JOHN DOUGLAS
Office held: DIRECTOR

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

Signature:
Signatory's name: G.L. TOLTZ
Signatory's capacity: SOLICITOR NEUTRAL BAY

All handwriting must be in block capitals.

Page 1 of 1 number additional pages sequentially

Land and Property Information NSW.

off NB1 7730751

Form: 01T
Release: 4.1
www.lpma.nsw.gov.au

TRANSF

New South Wa
Real Property Act

AH139780R

onal

PRIVACY NOTE: Section 31B of the Real Property Act 1900 (RP Act) autho ired by this form for the establishment and maintenance of the Real Property Act Register. Section 96B RP Act requires that the Register is made available to any person for search upon payment of a fee, if any.

STAMP DUTY (1)

Office of State Revenue use only

NEW SOUTH WALES DUTY
20-07-2012 .0006740969-001
SECTION 18(2)
DUTY $ **********10.00

(A) TORRENS TITLE

Folio Identifier 41/1037411

(B) LODGED BY

Document Collection Box	Name, Address or DX, Telephone, and Customer Account Number if any	CODES
185H	Clayton Utz, Lawyers 123111K 1 Bligh Street, Sydney NSW 2000 Reference: 80128976 ~~30696176 9~~	T JT TF TJ TK TW

(C) TRANSFEROR

See Annexure "A"

(D) CONSIDERATION The transferor acknowledges receipt of the consideration of $ 11,000,000.00 and as regards

(E) ESTATE the abovementioned land transfers to the transferee an estate in fee simple

(F) SHARE TRANSFERRED

(G) Encumbrances (if applicable):

(H) TRANSFEREE

Kingshill Development No 1 Pty Limited ACN 158 129 652

(I) TENANCY:

DATE 2 July 2012

(J) 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.

Signature of witness:

Name of witness:
Address of witness: For execution see Annexure "B"

OFF X AH6375

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

Signature of transferor:

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

Signature: X Deborah Bailey

Signatory's name: Deborah Bailey
Signatory's capacity: transferee's solicitor

(K) The _____ certifies that the eNOS data relevant to this dealing has been submitted and stored under eNOS ID No. _____ Full name: _____ Signature: _____

1008

ALL HANDWRITING MUST BE IN BLOCK CAPITALS.

LAND AND PROPERTY MANAGEMENT AUTHORITY

This is the Annexure "A" referred to in the Transfer between **Morgan & Banks Developments Pty Limited ACN 097 945 214** and **Mondell Properties Pty Limited ACN 098 060 256** (as Transferor) and **Kingshill Development No 1 Pty Limited ACN 158 129 652** (as Transferee)
dated 2nd of July 2012

Transferor:

Morgan & Banks Developments Pty Ltd ACN 097 945 214 and Mondell Properties Pty Limited ACN 098 060 256

This is the Annexure "B" referred to in the Transfer between **Morgan & Banks Developments Pty Limited ACN 097 945 214** and **Mondell Properties Pty Limited ACN 098 060 256** (as Transferor) and **Kingshill Development No 1 Pty Limited ACN 158 129 652** (as Transferee)
dated 2nd of July 2012

Executed by **Morgan & Banks Developments Pty Limited ACN 097 945 214** in accordance with section 127 of the Corporations Act 2001 (Cth):

Graham Leonard Brand
Full name of sole director and company secretary who states that he or she is the sole director and sole company secretary of **Morgan & Banks Developments Pty Limited ACN 097 945 214**

Signature of sole director and sole company secretary

Executed by **Mondell Properties Pty Limited ACN 098 060 256** in accordance with section 127 of the Corporations Act 2001 (Cth) by:

Signature of director

CHRIS RUSSELL
Full name of director

Signature of company secretary/director

PHILIPPE REMOND
Full name of company secretary/director

Title Search

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 41/1037411

SEARCH DATE	TIME	EDITION NO	DATE
28/7/2020	11:28 AM	6	5/11/2019

LAND

LOT 41 IN DEPOSITED PLAN 1037411
AT RAYMOND TERRACE
LOCAL GOVERNMENT AREA PORT STEPHENS
PARISH OF ELDON COUNTY OF GLOUCESTER
PARISH OF THORNTON COUNTY OF GLOUCESTER
TITLE DIAGRAM DP1037411

FIRST SCHEDULE

KINGSHILL DEVELOPMENT NO 1 PTY LIMITED (T AH139780)

SECOND SCHEDULE (12 NOTIFICATIONS)

1 LAND EXCLUDES MINERALS WITHIN THE PART(S) SHOWN SO INDICATED IN THE TITLE DIAGRAM & IS SUBJECT TO RESERVATIONS & CONDITIONS IN FAVOUR OF THE CROWN - SEE CROWN GRANT(S)
2 LIMITED TITLE. LIMITATION PURSUANT TO SECTION 28T(4) OF THE REAL PROPERTY ACT, 1900. THE BOUNDARIES OF THE LAND COMPRISED HEREIN HAVE NOT BEEN INVESTIGATED BY THE REGISTRAR GENERAL.
3 BK 2532 NO 397 EASEMENT FOR TRANSMISSION LINE 30.475 METRE(S) WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
4 BK 2942 NO 285 EASEMENT FOR TRANSMISSION LINE 30.475 METRE(S) WIDE AND VARIABLE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
5 DP839722 RIGHT OF CARRIAGEWAY 20 WIDE & VARIABLE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
6 DP850337 EASEMENT TO FLOOD VARIABLE WIDTH (A) AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
7 DP850337 RIGHT OF CARRIAGEWAY 20 WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
8 DP850337 RIGHT OF CARRIAGEWAY VARIABLE WIDTH AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
9 DP850337 EASEMENT TO DISCHARGE WATER APPURTENANT TO THE PART(S) SHOWN SO BENEFITED IN THE TITLE DIAGRAM
10 DP850337 EASEMENT FOR TRANSMISSION LINE 10 WIDE & VARIABLE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
11 DP1037411 RIGHT OF CARRIAGEWAY 10 METRE(S) WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
12 AP655670 PLANNING AGREEMENT PURSUANT TO SECTION 7.6

END OF PAGE 1 - CONTINUED OVER

SECOND SCHEDULE (12 NOTIFICATIONS) (CONTINUED)

ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

Historical Title

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
28/7/2020 11:33AM

FOLIO: 482/804971

First Title(s): OLD SYSTEM
Prior Title(s): CA47074

Recorded	Number	Type of Instrument	C.T. Issue
24/9/1990	CA47074	CONVERSION ACTION	FOLIO CREATED EDITION 1
9/6/1995	O297641	DEPARTMENTAL DEALING	
16/8/1995	DP852073	DEPOSITED PLAN	FOLIO CANCELLED

*** END OF SEARCH ***

3221 Pacific Highway, Kings Hill PRINTED ON 28/7/2020

Received: 28/07/2020 11:33:34

Historical Title

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
28/7/2020 11:33AM

FOLIO: 4821/852073

First Title(s): OLD SYSTEM
Prior Title(s): 482/804971

Recorded	Number	Type of Instrument	C.T. Issue
16/8/1995	DP852073	DEPOSITED PLAN	FOLIO CREATED EDITION 1
27/2/1997	2866755	MORTGAGE	EDITION 2
13/3/2000	6634547	DISCHARGE OF MORTGAGE	
13/3/2000	6634548	TRANSFER	
13/3/2000	6634549	MORTGAGE	EDITION 3
18/10/2001	8036221	CAVEAT	
13/8/2002	8860089	WITHDRAWAL OF CAVEAT	
17/10/2002	9041071	CAVEAT	
29/3/2004	AA528659	DISCHARGE OF MORTGAGE	EDITION 4
3/7/2004	AA701777	TRANSFER	EDITION 5
24/5/2012	AH6387	CAVEAT	
27/7/2012	AH139786	TRANSFER	EDITION 6
5/11/2019	AP655670	REQUEST	EDITION 7

*** END OF SEARCH ***

3221 Pacific Highway, Kings Hill PRINTED ON 28/7/2020

Received: 28/07/2020 11:33:15

Licence: 10V/0096/96
Edition: 9804

TRANSFER
New South Wales
Real Property Act 1900

STAMP DUTY Office of State Revenue use only

(1)

NEW SOUTH WALES DUTY
03-12-1999 0000174560-001
SECTION 16(2)
DUTY $ ********2.00

(A) **TORRENS TITLE** If appropriate, specify the part or share transferred
Certificate of Title Folio Identifier 4821/852073

(B) **LODGED BY**

~~LTO Box~~	Name, Address or DX and Telephone	CODES
33H	THOMAS KEN[illegible]N DX 436 S PHONE: (02) [illegible] Reference (optional): 3, EAGLETON	T TS (s713) TW (Sheriff)

(C) **TRANSFEROR**
ADAM PASTORAL COMPANY PTY. LIMITED ACN 000 064 595

(D) The tranferor acknowledges receipt of the consideration of $ 255,000 and as regards the land specified above transfers to the transferee an estate in fee simple.

(E) Encumbrances (if applicable): 1. 2. 3.

(F) **TRANSFEREE**
IAN STEPHEN CHARLES EAGLETON

(G) **TENANCY:**

(H) We certify this dealing correct for the purposes of the Real Property Act 1900. **DATE:** 17 December 1999

~~Signed in my presence by the transferor who is personally known to me.~~

THE COMMON SEAL of ADAM PASTORAL COMPANY PTY. LIMITED was hereunto affixed in pursuance of a resolution of the Board of Directors and in the presence of:

~~Signature of witness:~~ ~~Signature of transferor:~~

~~Name of witness:~~

~~Address of witness:~~

Secretary

Director

Signed in my presence by the transferee who is personally known to me.

Signature of witness:

Name of witness:

Address of witness:

Signature of transferee:

If signed on the transferee's behalf by a solicitor or licensed conveyancer, show the signatory's full name and capacity below:

PETER KIRSOP

SOLICITOR, 9 CHURCH STREET MAITLAND

All handwriting must be in block capitals.
A set of notes on this form (97-01T-2) is available from the Land Titles Office.

Page 1 of ____
number additional pages sequentially

Checked by (LTO use):

Form: 01T
Release: 2
www.lpi.nsw.gov.au

TRANSFER

New South Wales
Real Property Act 1900

AA701777W

RELODGED

STAMP DUTY
18 JUN 2004

TIME: 12.21

Office of State Revenue Use Only
NSW Treasury
Client No: 95102931 1792
VENDOR DUTY
ENDORSED
Trans No: Not Liable

PRIVACY NOTE: this information is legally required and will b... part of the public record

(A) **TORRENS TITLE**

Lot 4821 in Deposited Plan 852073

NOW BEING 4821/852073

NEW SOUTH WALES DUTY
17-06-2004
SECTION 18(2)
DUTY ... .00
0002016679-001

(B) **LODGED BY**

Delivery Box	Name, Address or DX and Telephone	CODES
2046	TOMKINSON TLH Reference:	T TW (Sheriff)

(C) **TRANSFEROR**

IAN STEPHEN CHARLES EAGLETON

(D) **CONSIDERATION** The transferor acknowledges receipt of the consideration of $ 500,000.00 and as regards

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

(F) **SHARE TRANSFERRED** 100%

(G) Encumbrances (if applicable):

(H) **TRANSFEREE**

MORGAN & BANKS DEVELOPMENTS PTY LIMITED as to 3/4 share and MONDELL PROPERTIES PTY LIMITED as to the remaining 1/4 share

T

(I)

TENANCY: Tenants in Common

(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.

Signature of witness:

Name of witness: Bruce John Worrell

Address of witness: Solicitor

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

Signature of transferor:

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

Signature:

Signatory's name: REBECCA L. TREMBATH
Signatory's capacity: transferee's licensed conveyancer

All handwriting must be in block capitals.

Leg 18 approved regn = lapsing of Caveat 9041071

Title Search

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 4821/852073

SEARCH DATE	TIME	EDITION NO	DATE
28/7/2020	11:32 AM	7	5/11/2019

LAND

LOT 4821 IN DEPOSITED PLAN 852073
AT RAYMOND TERRACE
LOCAL GOVERNMENT AREA PORT STEPHENS
PARISH OF THORNTON COUNTY OF GLOUCESTER
TITLE DIAGRAM DP852073

FIRST SCHEDULE

KINGSHILL DEVELOPMENT NO 2 PTY LIMITED (T AH139786)

SECOND SCHEDULE (5 NOTIFICATIONS)

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 BK 3071 NO 814 COVENANT AFFECTING THE PART SHOWN SO BURDENED IN THE TITLE DIAGRAM.
3 DP852073 RIGHT OF CARRIAGEWAY 8 WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
4 DP852073 RIGHT OF CARRIAGEWAY 8 WIDE APPURTENANT TO THE LAND ABOVE DESCRIBED
5 AP655670 PLANNING AGREEMENT PURSUANT TO SECTION 7.6 ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

Received: 28/07/2020 11:32:44

WaterNSW
Work Summary

GW066683

Licence: 20WA214242 **Licence Status:** CURRENT

Authorised Purpose(s): STOCK,DOMESTIC
Intended Purpose(s): STOCK, DOMESTIC

Work Type: Bore
Work Status: Supply Obtained
Construct.Method:
Owner Type: Private

Commenced Date:
Completion Date: 06/02/1991
Final Depth: 35.00 m
Drilled Depth: 35.00 m

Contractor Name: (None)
Driller:
Assistant Driller:

Property: N/A NSW
GWMA: -
GW Zone: -
Standing Water Level (m): 14.000
Salinity Description:
Yield (L/s): 0.900

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	GLOUCESTER	THORNTON	56
Licensed:	GLOUCESTER	THORNTON	Whole Lot 30//255228

Region: 20 - Hunter
River Basin: 210 - HUNTER RIVER
Area/District:
CMA Map:
Grid Zone:
Scale:

Elevation: 38.00 m (A.H.D.)
Elevation Source: Est. Contour 8-15M.
Northing: 6381215.000
Easting: 385987.000
Latitude: 32°42'03.3"S
Longitude: 151°47'01.1"E

GS Map: -
MGA Zone: 56
Coordinate Source: GD.,ACC.MAP

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1	1	Casing	P.V.C.	0.00	35.00	105			Seated on Bottom
1	1	Opening	Slots - Horizontal	15.00	22.00	105		1	Mechanically Slotted, A: 3.00mm

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
14.00	15.00	1.00	Fractured			0.02			

20.00	21.00	1.00	Fractured			0.88				

Remarks

23/11/2009: Updated details as per existing data.

***** End of GW066683 *****

WaterNSW
Work Summary

GW201362

Licence: 20BL172931 **Licence Status:** ACTIVE

Authorised Purpose(s): MONITORING BORE
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status: Equipped
Construct.Method:
Owner Type: Mines

Commenced Date:
Completion Date: 25/02/2002
Final Depth: 13.50 m
Drilled Depth: 21.00 m

Contractor Name: McDermott Drilling
Driller: Unkown Unknown
Assistant Driller:

Property: N A 330 Newline Rd RAYMOND TERRACE 2324 NSW
GWMA: -
GW Zone: -
Standing Water Level (m): 8.275
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:	GLOUCESTER	ELDON	2//1098770
Licensed:	GLOUCESTER	ELDON	Whole Lot 2//1098770

Region: 20 - Hunter
River Basin: 210 - HUNTER RIVER
Area/District:
CMA Map: 9232-1S
Grid Zone:
Scale:

Elevation: 11.18 m (A.H.D.)
Elevation Source: R.L. at Surface
Northing: 6378122.000
Easting: 383622.000
Latitude: 32°43'42.8"S
Longitude: 151°45'28.9"E

GS Map: -
MGA Zone: 56
Coordinate Source: GPS - Global

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	21.00	100			(Unknown)
1		Annulus	Waterworn/Rounded	0.00	5.00	100	50		Graded, PL:Poured/Shovelled
1		Annulus	Bentonite	5.00	6.00	100	50		PL:Poured/Shovelled
1		Annulus	Waterworn/Rounded	6.00	13.50	100	50		Graded, PL:Poured/Shovelled
1		Backfill	Gravel	13.50	21.00	100			
1	1	Casing	Pvc Class 18	0.00	13.50	50			Seated
1	1	Opening	Slots	8.00	13.50	50		0	PVC Class 18, ()

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	2.00	2.00	Gravel, Silty Sandy; brown, dry, fine-coarse sand & gravel, well graded. ROAD BASE FILL	Gravel	
2.00	4.00	2.00	Siltstone; brown, fine grained, laminated, highly weathered, fractured. SEAHAM BEDS FORMATION	Siltstone	
4.00	12.00	8.00	Siltstone; brown, fine grained, laminated, highly weathered, fractured. SEAHAM BEDS FORMATION	Siltstone	
12.00	21.00	9.00	Siltstone; light grey, fine grained, laminate4d, slightly weathered, highly fractured, indurated, quartz carbonate, vein	Siltstone	

Remarks

22/02/2010: Form A Remarks:
Nat Carling, 2-Apr-2012; Coordinates based on location map provided with Well Logs.
18/04/2012: Nat Carling, 18-Apr-2012; Updated coordinates with GPS provided by consultant.

***** End of GW201362 *****

WaterNSW
Work Summary

GW201363

Licence:
Licence Status:
Authorised Purpose(s):
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status: Equipped
Construct.Method:
Owner Type: Mines

Commenced Date:
Completion Date: 26/02/2002
Final Depth: 6.00 m
Drilled Depth: 6.00 m

Contractor Name: McDermott Drilling
Driller: Unkown Unknown
Assistant Driller:

Property:
GWMA:
GW Zone:
Standing Water Level (m): 1.080
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:			
Licensed:	GLOUCESTER	ELDON	2//1098770

Region: 20 - Hunter
River Basin: 210 - HUNTER RIVER
Area/District:
CMA Map: 9232-1S
Grid Zone:
Scale:

Elevation: 34.09 m (A.H.D.)
Elevation Source: R.L. at Surface
Northing: 6377959.000
Easting: 382902.000
Latitude: 32°43'47.8"S
Longitude: 151°45'01.1"E

GS Map: -
MGA Zone: 56
Coordinate Source: GPS - Global

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	6.00	100			(Unknown)
1		Annulus	Waterworn/Rounded	0.00	0.50	100	50		Graded
1		Annulus	Bentonite	0.50	1.50	100	50		
1		Annulus	Waterworn/Rounded	1.50	6.00	100	50		Graded
1	1	Casing	Pvc Class 18	-0.08	6.00	50			Seated on Bottom
1	1	Opening	Slots	3.00	6.00	50		0	PVC Class 18

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments

0.00	4.00	4.00	Gravel, Silty Sandy; brown, dry, fine to coarse sand & gravel, well graded, ROAD BASE FILL & RESIDUAL SOIL	Gravel	
4.00	6.00	2.00	Conglomerate; light grey, fine to medium clasts of basalt, siltstone, sandstone & chert in fine matrix, slightly weather	Conglomerate	

Remarks

26/02/2002: Form A Remarks:
Nat Carling, 2-Apr-2012; Coordinates based on location map provided with Well Logs.
18/04/2012: Nat Carling, 18-Apr-2012; Updated coordinates with GPS provided by consultant.

***** End of GW201363 *****

WaterNSW
Work Summary

GW201365

Licence:
Licence Status:
Authorised Purpose(s):
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status: Equipped
Construct.Method:
Owner Type: Mines

Commenced Date:
Completion Date: 26/02/2002
Final Depth: 20.00 m
Drilled Depth: 20.00 m

Contractor Name: McDermott Drilling
Driller: Unkown Unknown
Assistant Driller:

Property:
GWMA:
GW Zone:
Standing Water Level (m): 5.453
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:			
Licensed:	GLOUCESTER	ELDON	2//1098770

Region: 20 - Hunter
River Basin: 210 - HUNTER RIVER
Area/District:
CMA Map: 9232-1S
Grid Zone:
Scale:

Elevation: 2.27 m (A.H.D.)
Elevation Source: R.L. at Surface
Northing: 6377941.000
Easting: 383458.000
Latitude: 32°43'48.6"S
Longitude: 151°45'22.5"E

GS Map: -
MGA Zone: 56
Coordinate Source: GPS - Global

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	20.00	100			(Unknown)
1		Annulus	Waterworn/Rounded	0.00	5.00	100	50		Graded
1		Annulus	Bentonite	5.00	6.00	100	50		
1		Annulus	Waterworn/Rounded	6.00	20.00	100	50		Graded
1	1	Casing	Pvc Class 18	-0.73	20.00	50			Seated on Bottom
1	1	Opening	Slots	14.00	20.00	50		0	PVC Class 18

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments

0.00	20.00	20.00	Dacite; dark grey, fine grained & porphyritic, very strong rock, fractured, slightly weathered to fresh, minor seepages	Dacite(Tonalite)	

Remarks

26/02/2002: Form A Remarks:
Nat Carling, 2-Apr-2012; Coordinates based on location map provided with Well Logs.
18/04/2012: Nat Carling, 18-Apr-2012; Updated coordinates with GPS provided by consultant.

***** End of GW201365 *****

WaterNSW
Work Summary

GW201367

Licence:
Licence Status:
Authorised Purpose(s):
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status: Equipped
Construct.Method:
Owner Type: Mines

Commenced Date:
Completion Date: 10/07/2002
Final Depth: 23.00 m
Drilled Depth: 23.00 m

Contractor Name: McDermott Drilling
Driller: Unkown Unknown
Assistant Driller:

Property:
GWMA:
GW Zone:
Standing Water Level (m): 8.654
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:			
Licensed:	GLOUCESTER	ELDON	2//1098770

Region: 20 - Hunter
River Basin: 210 - HUNTER RIVER
Area/District:
CMA Map: 9232-1S
Grid Zone:
Scale:

Elevation: 2.88 m (A.H.D.)
Elevation Source: R.L. at Surface
Northing: 6378063.000
Easting: 383439.000
Latitude: 32°43'44.7"S
Longitude: 151°45'21.8"E

GS Map: -
MGA Zone: 56
Coordinate Source: GPS - Global

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	23.00	100			(Unknown)
1		Annulus	Waterworn/Rounded	0.00	4.00	100	50		Graded
1		Annulus	Bentonite	4.00	5.00	100	50		
1		Annulus	Waterworn/Rounded	5.00	23.00	100	50		Graded
1	1	Casing	Pvc Class 18	-0.80	23.00	50			Seated on Bottom
1	1	Opening	Slots	17.00	23.00	50		0	PVC Class 18

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments

0.00	3.00	3.00	Dacite; dark grey, fine grained, porphyritic, slightly weathered to fresh, minor oxide staining on joints	Dacite(Tonalite)	
3.00	5.00	2.00	Conglomerate; light grey, fine-medium clasts of basalt, siltstone, sandstone & chert in fine matrix, indurated upper con	Conglomerate	
5.00	21.00	16.00	Siltstone, Siliceous; interbedded green & red horizons, fine grained, fresh rock, water @ 9.5m	Siltstone	
21.00	23.00	2.00	Conglomerate; light grey, fine-medium clasts of basalt, siltstone, sandstone & chert in fine matrix, indurated upper con	Conglomerate	

Remarks

10/07/2002: Form A Remarks:
Nat Carling, 2-Apr-2012; Coordinates based on site MWC on location map provided with Well Logs (as MW9 was not marked).
18/04/2012: Nat Carling, 18-Apr-2012; Updated coordinates with GPS provided by consultant.

***** End of GW201367 *****

WaterNSW
Work Summary

GW201368

Licence:
Licence Status:
Authorised Purpose(s):
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status: Equipped
Construct.Method:
Owner Type: Mines

Commenced Date:
Completion Date: 10/07/2002
Final Depth: 23.00 m
Drilled Depth: 23.00 m

Contractor Name: McDermott Drilling
Driller: Unkown Unknown
Assistant Driller:

Property:
GWMA:
GW Zone:
Standing Water Level (m): 16.982
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:			
Licensed:	GLOUCESTER	ELDON	2//1098770

Region: 20 - Hunter
River Basin: 210 - HUNTER RIVER
Area/District:
CMA Map: 9232-4S
Grid Zone:
Scale:

Elevation: 2.64 m (A.H.D.)
Elevation Source: R.L. at Surface
Northing: 6378020.000
Easting: 383525.000
Latitude: 32°43'46.1"S
Longitude: 151°45'25.1"E

GS Map: -
MGA Zone: 56
Coordinate Source: GPS - Global

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	23.00	100			(Unknown)
1		Annulus	Waterworn/Rounded	0.00	4.00	100	50		Graded
1		Annulus	Bentonite	4.00	5.00	100	50		
1		Annulus	Waterworn/Rounded	5.00	23.00	100	50		Graded
1	1	Casing	Pvc Class 18	-0.84	23.00	50			Seated on Bottom
1	1	Opening	Slots	17.00	23.00	50		0	PVC Class 18

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments

0.00	23.00	23.00	Dacite; dark grey, fine grained, porphyritic, slightly weathered to fresh, minro oxide staining on joints	Dacite(Tonalite)	

Remarks

10/07/2002: Form A Remarks:
Nat Carling, 2-Apr-2012; Coordinates based on site MWD location map provided with Well Logs, (as MW10 was not marked).
18/04/2012: Nat Carling, 18-Apr-2012; Updated coordinates with GPS provided by consultant.

***** End of GW201368 *****

WaterNSW
Work Summary

GW201369

Licence:
Licence Status:
Authorised Purpose(s):
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status: Equipped
Construct.Method:
Owner Type: Mines

Commenced Date:
Completion Date: 10/07/2002
Final Depth: 23.00 m
Drilled Depth: 23.00 m

Contractor Name: McDermott Drilling
Driller: Unkown Unknown
Assistant Driller:

Property:
GWMA:
GW Zone:
Standing Water Level (m): 9.721
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:			
Licensed:	GLOUCESTER	ELDON	2//1098770

Region: 20 - Hunter
River Basin: 210 - HUNTER RIVER
Area/District:
CMA Map: 9232-1S
Grid Zone:
Scale:

Elevation: 3.35 m (A.H.D.)
Elevation Source: R.L. at Surface
Northing: 6377884.000
Easting: 383354.000
Latitude: 32°43'50.4"S
Longitude: 151°45'18.5"E

GS Map: -
MGA Zone: 56
Coordinate Source: GPS - Global

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	23.00	100			(Unknown)
1		Annulus	Waterworn/Rounded	0.00	4.00	100	50		Graded
1		Annulus	Bentonite	4.00	5.00	100	50		
1		Annulus	Waterworn/Rounded	5.00	23.00	100	50		Graded
1	1	Casing	Pvc Class 18	-0.90	23.00	50			Seated on Bottom
1	1	Opening	Slots	17.00	23.00	50		0	PVC Class 18

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments

0.00	8.00	8.00	Dacite; dark grey, fine grained, porphyritic, slightly weathered with strong oxide staining on fractures	Dacite(Tonalite)	
8.00	23.00	15.00	Dacite; dark grey, fine grained, porphyritic, slightly weathered to fresh, minor oxide staining on joints	Dacite(Tonalite)	

Remarks

10/07/2002: Form A Remarks:
Nat Carling, 2-Apr-2012; Coordinates based on location map provided with Well Logs.
18/04/2012: Nat Carling, 18-Apr-2012; Updated coordinates with GPS provided by consultant.

***** End of GW201369 *****

WaterNSW
Work Summary

GW201370

Licence:
Licence Status:
Authorised Purpose(s):
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status: Equipped
Construct.Method:
Owner Type: Mines

Commenced Date:
Completion Date: 12/07/2002
Final Depth: 23.00 m
Drilled Depth: 23.00 m

Contractor Name: McDermott Drilling
Driller: Unkown Unknown
Assistant Driller:

Property:
GWMA:
GW Zone:
Standing Water Level (m): 6.769
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:			
Licensed:	GLOUCESTER	ELDON	2//1098770

Region: 20 - Hunter
River Basin: 210 - HUNTER RIVER
Area/District:
CMA Map: 9232-1S
Grid Zone:
Scale:

Elevation: 3.87 m (A.H.D.)
Elevation Source: R.L. at Surface
Northing: 6377760.000
Easting: 383176.000
Latitude: 32°43'54.4"S
Longitude: 151°45'11.6"E

GS Map: -
MGA Zone: 56
Coordinate Source: GPS - Global

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	23.00	100			(Unknown)
1		Annulus	Waterworn/Rounded	0.00	6.00	100	50		Graded
1		Annulus	Bentonite	6.00	7.00	100	50		
1		Annulus	Waterworn/Rounded	7.00	23.00	100	50		Graded
1	1	Casing	Pvc Class 18	-0.85	23.00	50			Seated on Bottom
1	1	Opening	Slots	17.00	23.00	50		0	PVC Class 18

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments

0.00	2.00	2.00	Fill; Rock Embankment; comprising boulders of dacite & conglomerate in gravel matrix	Fill	
2.00	3.00	1.00	Sand, Gravelly, Silty, Clayey; dark brown, fine-coarse sand, fine gravel, well graded. COLLUVIUM	Sand	
3.00	6.00	3.00	Clay; light grey mottled brown, high plasticity, low permeability, stiff. RESIDUAL DACITE SOIL	Clay	
6.00	23.00	17.00	Dacite; dark grey, fine grained, porphyritic, slightly weathered with oxide staining on fractures to 18m	Dacite(Tonalite)	

Remarks

12/07/2002: Form A Remarks:
Nat Carling, 2-Apr-2012; Coordinates based on location map provided with Well Logs.
18/04/2012: Nat Carling, 18-Apr-2012; Updated coordinates with GPS provided by consultant.

***** End of GW201370 *****

WaterNSW
Work Summary

GW201371

Licence:
Licence Status:
Authorised Purpose(s):
Intended Purpose(s): MONITORING BORE

Work Type: Bore
Work Status: Equipped
Construct.Method:
Owner Type: Mines

Commenced Date:
Completion Date: 12/07/2002
Final Depth: 23.00 m
Drilled Depth: 23.00 m

Contractor Name: McDermott Drilling
Driller: Unkown Unknown
Assistant Driller:

Property:
GWMA:
GW Zone:
Standing Water Level (m): 11.612
Salinity Description:
Yield (L/s):

Site Details

Site Chosen By:

	County	Parish	Cadastre
Form A:			
Licensed:	GLOUCESTER	ELDON	2//1098770

Region: 20 - Hunter
River Basin: 210 - HUNTER RIVER
Area/District:
CMA Map: 9232-1S
Grid Zone:
Scale:

Elevation: 3.16 m (A.H.D.)
Elevation Source: R.L. at Surface
Northing: 6377691.000
Easting: 382982.000
Latitude: 32°43'56.6"S
Longitude: 151°45'04.1"E

GS Map: -
MGA Zone: 56
Coordinate Source: GPS - Global

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	23.00	100			(Unknown)
1		Annulus	Waterworn/Rounded	0.00	6.00	100	50		Graded
1		Annulus	Bentonite	6.00	7.00	100	50		
1		Annulus	Waterworn/Rounded	7.00	23.00	100	50		Graded
1	1	Casing	Pvc Class 18	-0.89	23.00	50			Seated on Bottom
1	1	Opening	Slots	17.00	23.00	50		0	PVC Class 18

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments

0.00	2.00	2.00	Fill, Rock embankment; comprising boulders of dacite & conglomerate in gravel matrix	Fill	
2.00	3.00	1.00	Sand, Gravelly, Silty, Clayey; dark brown, fine-coarse sand, fine gravel, well graded, COLLUVIUM	Sand	
3.00	6.00	3.00	Clay; light grey, mottled brown, high plasticity, low permeability, stiff. RESIDUAL DACITE SOIL	Clay	
6.00	23.00	17.00	Dacite; dark grey, fine grained, porphyritic, slightly weathered with oxide staining on fractures to 18m	Dacite(Tonalite)	

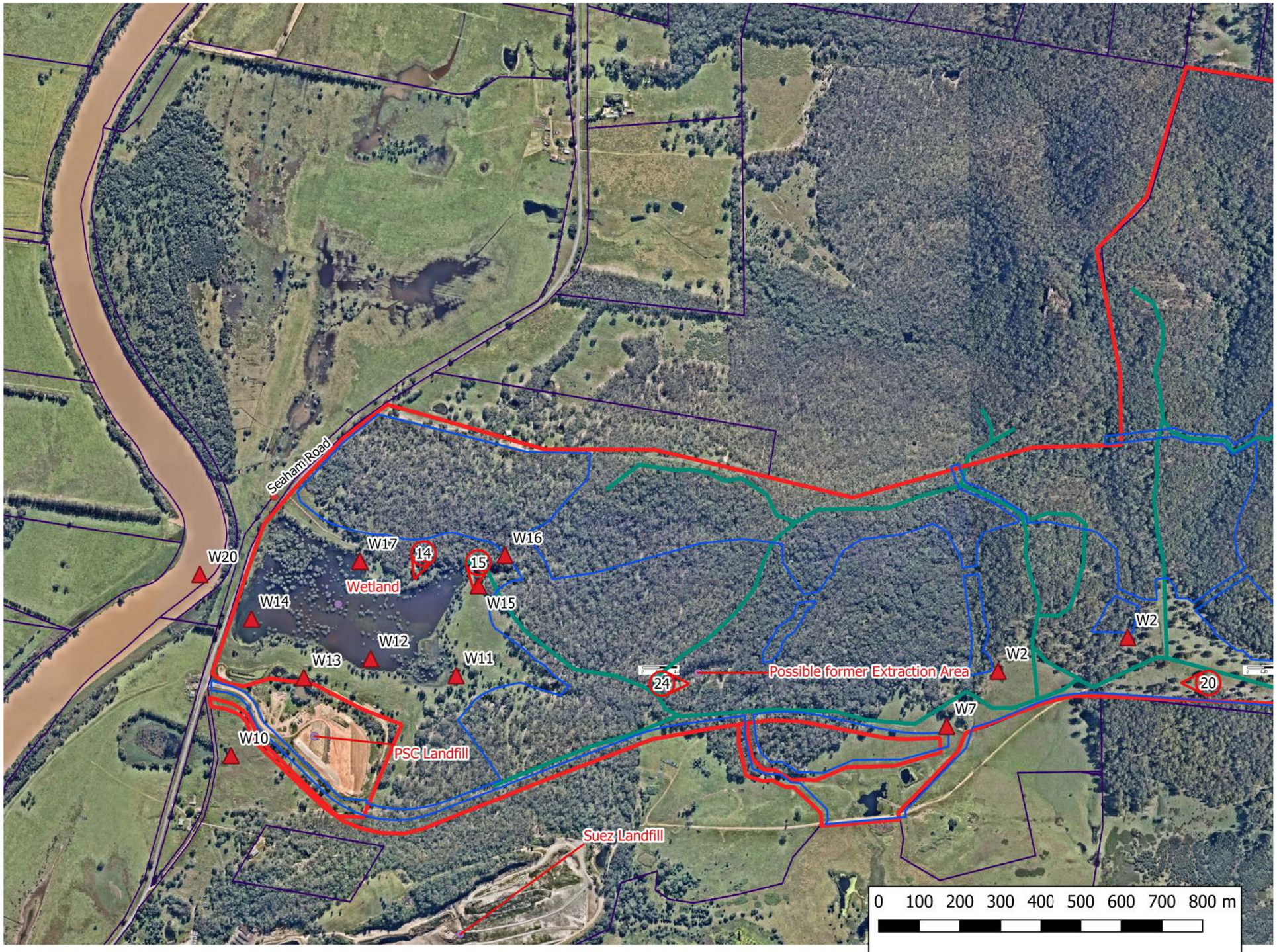
Remarks

12/07/2002: Form A Remarks:
Nat Carling, 2-Apr-2012; Coordinates based on location map provided with Well Logs.
18/04/2012: Nat Carling, 18-Apr-2012; Updated coordinates with GPS provided by consultant.

***** End of GW201371 *****

Appendix C

Drawings A1 to A3 – Identified Areas of Environmental Concern
Drawings E1 to E3 of DP(2020) – Test Location Plan



Locality Plan

Legend

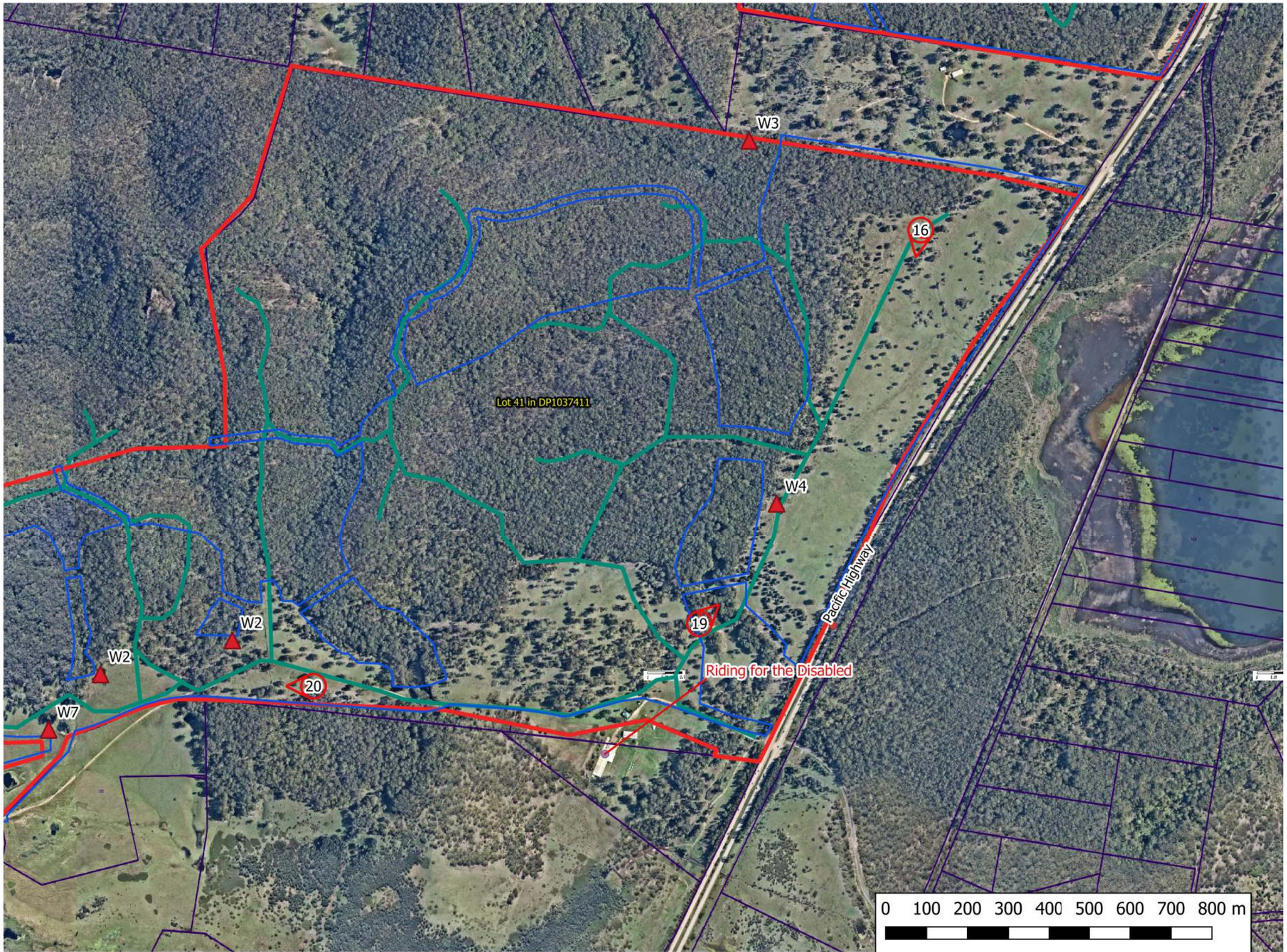
- site boundaries
- Figures in text
- Proposed Development Footprint
- Access Tracks
- water samples taken during DP (2005)

Drawing adapted from plan by Northrop Engineers and NearMap image

Douglas Partners
Geotechnics / Environment / Groundwater

CLIENT:	PM No 1 Pty Ltd	TITLE:	Site Features and Areas of Environmental Concern
OFFICE:	Newcastle	DRAWN BY:	MPG	Proposed Development
SCALE:	1:10000 @A3	DATE:	12.06.2020	North Raymond Terrace

PROJECT No:	81502.14
DRAWING No:	A1
REVISION:	0



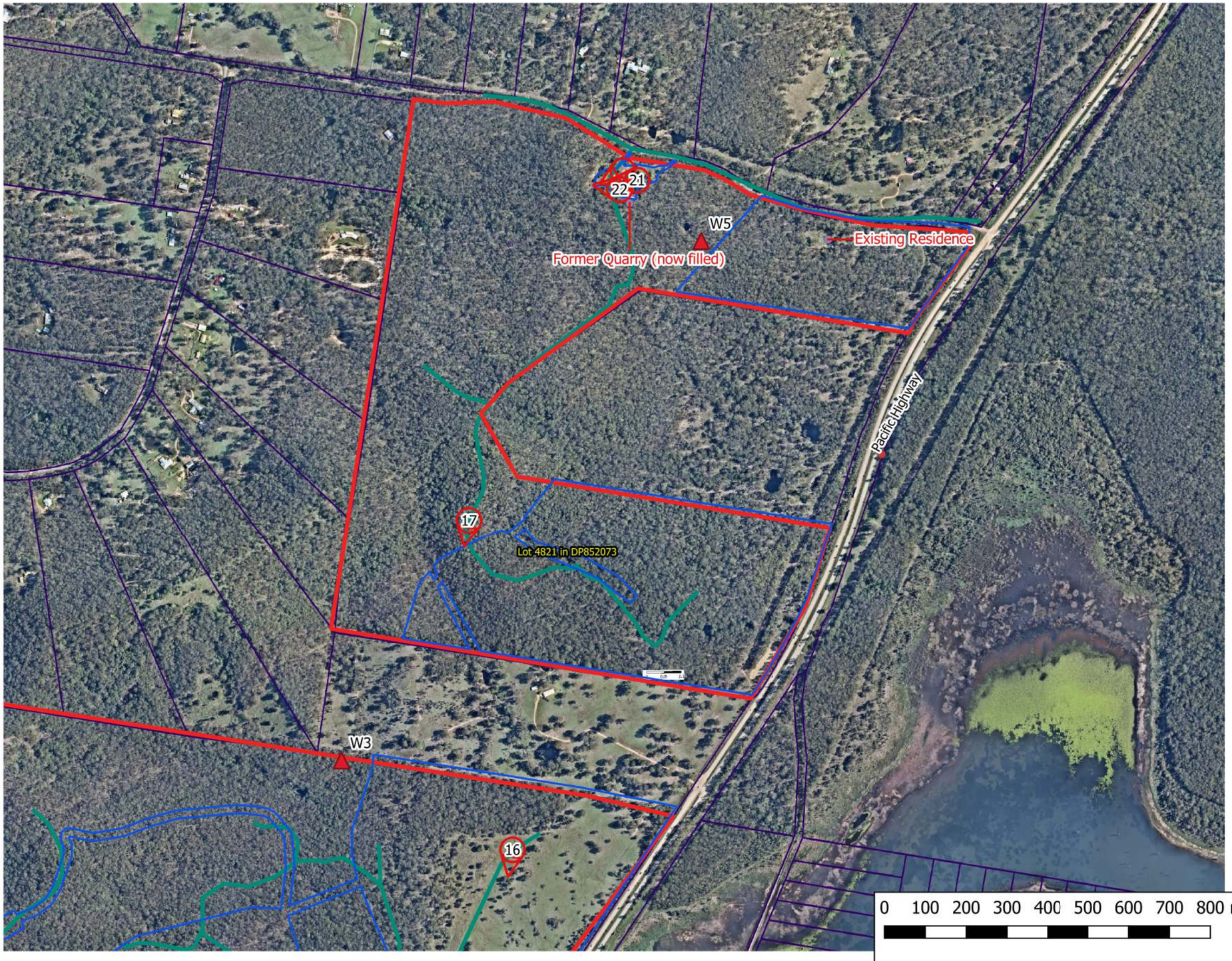
Locality Plan

Legend

- site boundaries
- Figures in text
- Proposed Development Footprint
- Access Tracks
- water samples taken during DP (2005)

Drawing adapted from plan by Northrop Engineers and NearMap image

Douglas Partners Geotechnics / Environment / Groundwater	CLIENT: PM No 1 Pty Ltd		TITLE: **Site Features and Areas of Environmental Concern** **Proposed Kings Hill Development** **North Raymond Terrace**	N	PROJECT No: 81502.14
	OFFICE: Newcastle	DRAWN BY: MPG			DRAWING No: A2
	SCALE: 1:10000 @A3	DATE: 12.06.2020			REVISION: 0



Locality Plan

Legend

- site boundaries
- Figures in text
- Proposed Development Footprint
- Access Tracks
- water samples taken during DP (2005)

Drawing adapted from plan by Northrop Engineers and NearMap image

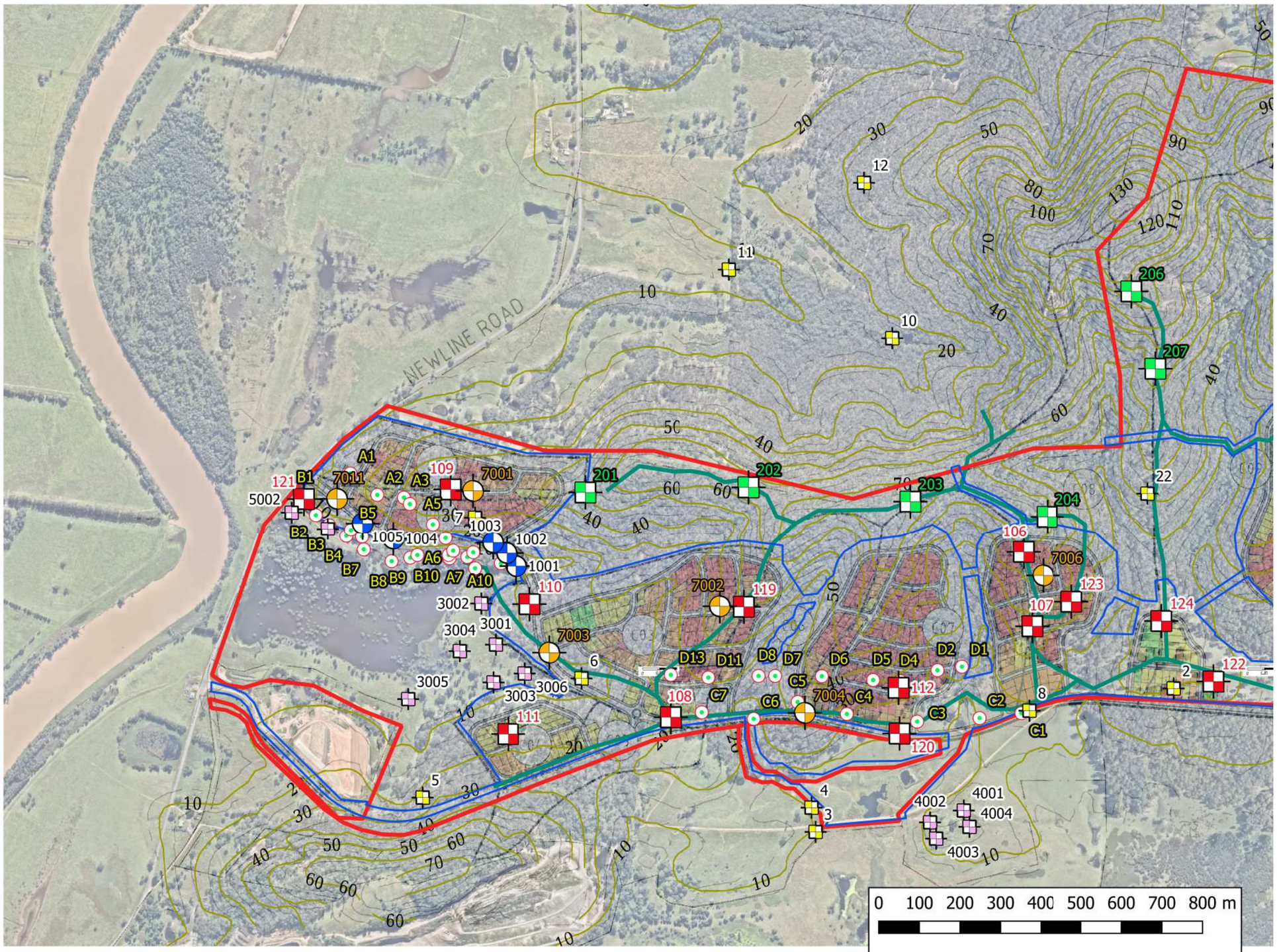
Douglas Partners
Geotechnics / Environment / Groundwater

CLIENT:	PM No 1 Pty Ltd		
OFFICE:	Newcastle	DRAWN BY:	MPG
SCALE:	1:10000 @A3	DATE:	12.06.2020

TITLE: **Site Features and Areas of Environmental Concern**
Proposed Kings Hill Development
North Raymond Terrace

N

PROJECT No:	81502.14
DRAWING No:	A3
REVISION:	0



Locality Plan

Legend

- site boundaries
- Proposed Development Footprint
- Access Tracks
- 100 Series Pits
- 2000 Series Pits
- 1000 Series Bores
- 200 Series Pits
- 200 Series Bore
- 7000 series bores

Previous Investigations

- DP (2015b), DP (2015c), DP (2016)
- DP (2017)
- DP (2015a) DCPs
- DP (2005)
- DP (2014)
- DP (2019)

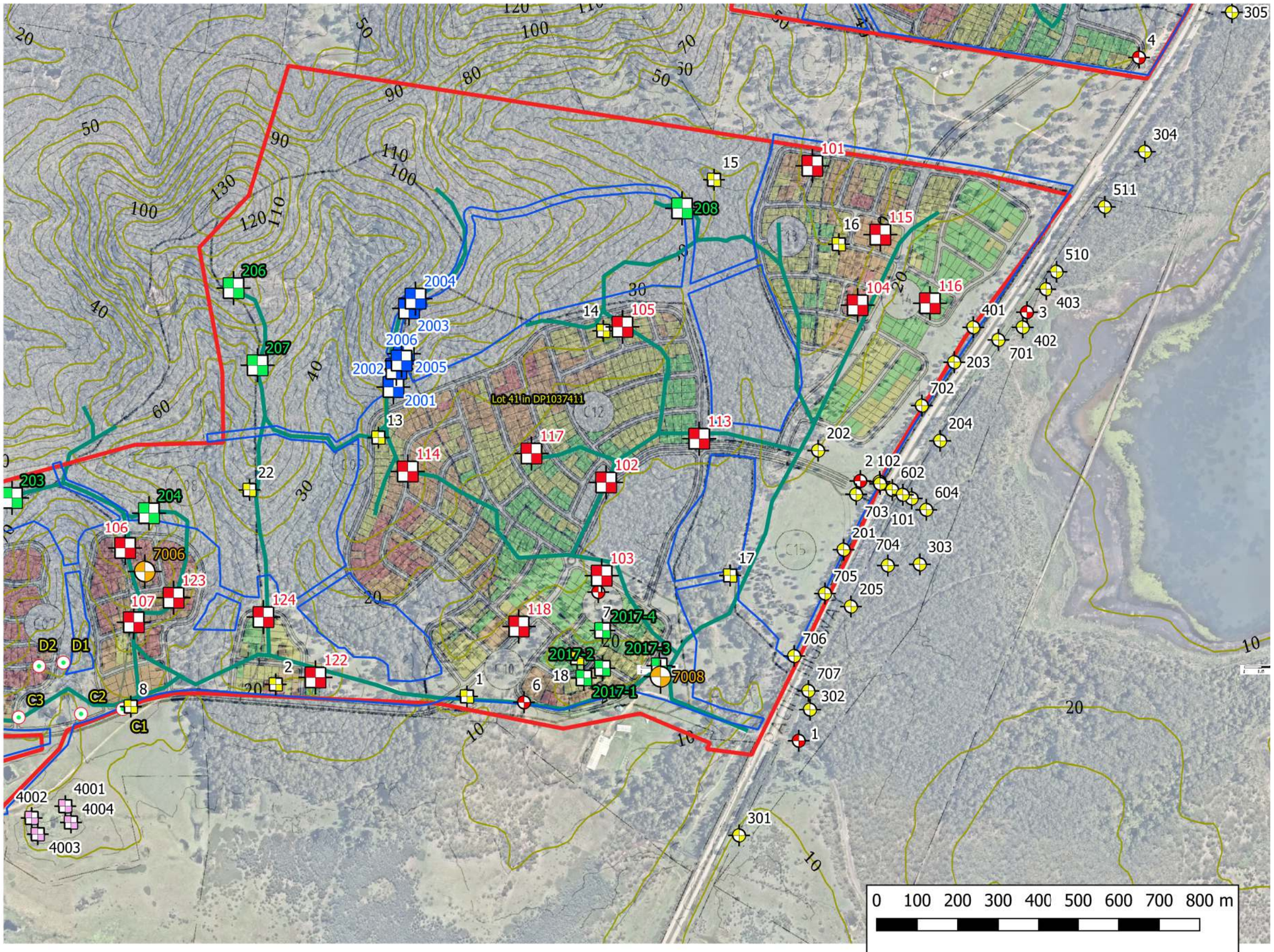
Drawing adapted from plan by Northrop Engineers and NearMap image

Douglas Partners
Geotechnics | Environment | Groundwater

CLIENT:	PM No 1 Pty Ltd		
OFFICE:	Newcastle	DRAWN BY:	MPG
SCALE:	1:10000 @A3	DATE:	28.04.2020

TITLE: **Test Location Plan**
Proposed Kings Hill Development
North Raymond Terrace

PROJECT No:	81502.12
DRAWING No:	E1
REVISION:	0



Locality Plan

Legend

- site boundaries
- Proposed Development Footprint
- Access Tracks
- 100 Series Pits
- 2000 Series Pits
- 1000 Series Bores
- 200 Series Pits
- 200 Series Bore
- 7000 series bores

Previous Investigations

- DP (2015b), DP (2015c), DP (2016)
- DP (2017)
- DP (2015a) DCPs
- DP (2005)
- DP (2014)
- DP (2019)

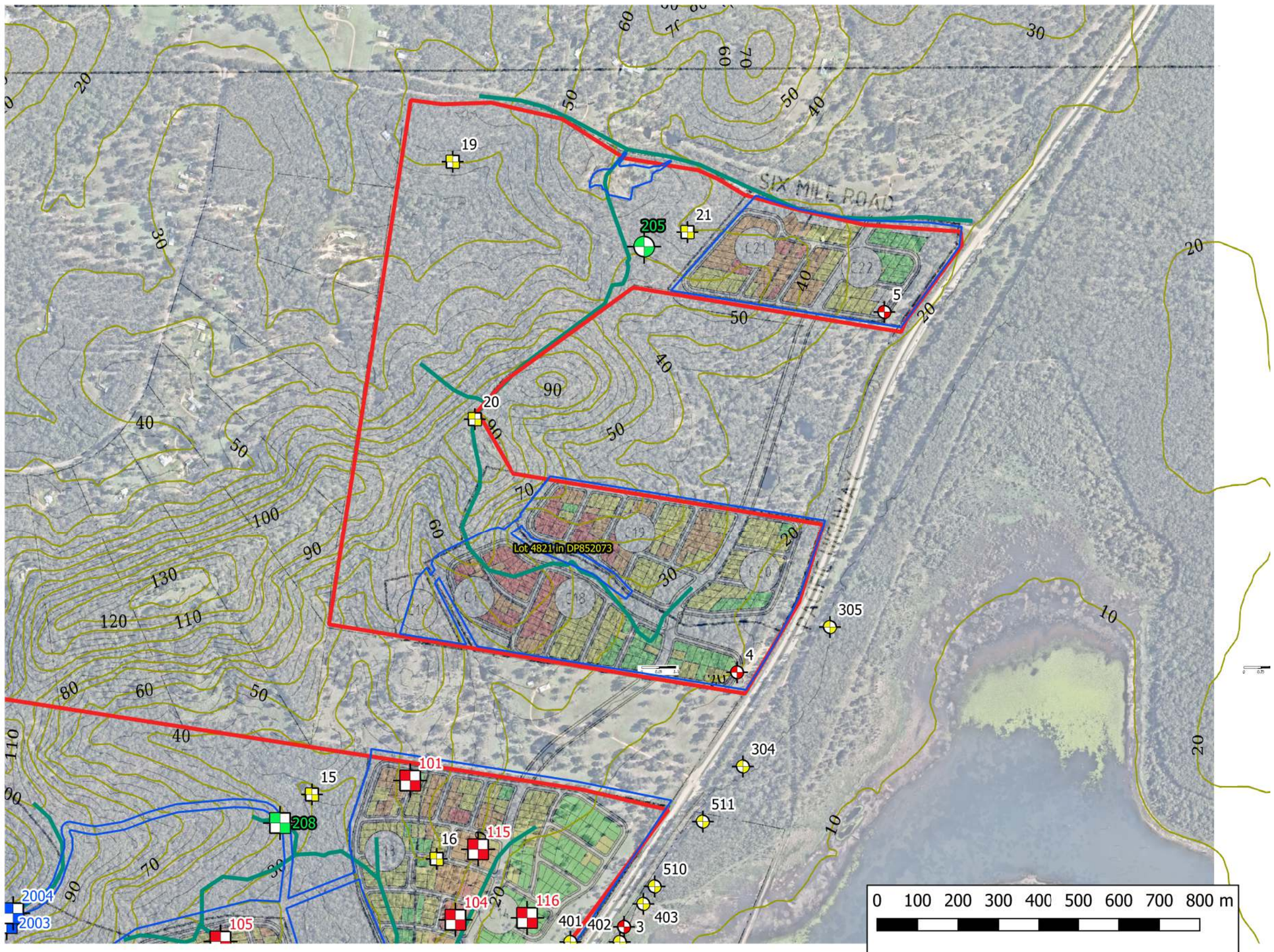
Drawing adapted from plan by Northrop Engineers and NearMap image

Douglas Partners
Geotechnics / Environment / Groundwater

CLIENT:	PM No 1 Pty Ltd		
OFFICE:	Newcastle	DRAWN BY:	MPG
SCALE:	1:10000 @A3	DATE:	28.04.2020

TITLE: **Test Location Plan**
Proposed Kings Hill Development
North Raymond Terrace

PROJECT No:	81502.12
DRAWING No:	E2
REVISION:	0



Locality Plan

Legend

- site boundaries
- Proposed Development Footprint
- Access Tracks
- 100 Series Pits
- 2000 Series Pits
- 1000 Series Bores
- 200 Series Pits
- 200 Series Bore
- 7000 series bores

Previous Investigations

- DP (2015b), DP (2015c), DP (2016)
- DP (2017)
- DP (2015a) DCPs
- DP (2005)
- DP (2014)
- DP (2019)

Drawing adapted from plan by Northrop Engineers and NearMap image

Douglas Partners
Geotechnics / Environment / Groundwater

CLIENT:	PM No 1 Pty Ltd		
OFFICE:	Newcastle	DRAWN BY:	MPG
SCALE:	1:10000 @A3	DATE:	28.04.2020

TITLE: **Test Location Plan**
Proposed Kings Hill Development
North Raymond Terrace

PROJECT No:	81502.12
DRAWING No:	E3
REVISION:	0