



South Cell at Woy Woy Waste Management Facility




Technical Report 3 – Preliminary Site Investigation

Central Coast Council

06 December 2023

→ **The Power of Commitment**



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1. Introduction

1.1 Overview

Central Coast Council (Council) owns and operates the existing Woy Woy Waste Management Facility (WMF) located on Nagari Road, Woy Woy. The WMF is the primary waste disposal facility for the southern Central Coast community and has operated since 1974. The WMF operates in accordance with Environment Protection Licence (EPL) No. 6053. The EPL permits resource recovery, waste disposal (application to land) and waste storage and authorises landfilling of up to 100,000 tonnes per year of putrescible and non-putrescible general solid waste, tyres and asbestos.

Key components of the existing WMF include:

- Weighbridge and office/education centre
- Current active landfill cell and tipping area
- Transfer station
- Garden organics (GO) facility
- Excavation and stockpiling area
- Stormwater and leachate management infrastructure

In 2020 Council commissioned the *Woy Woy Waste Management Facility – Development Strategy* (SMEC, 2020) (the 'Development Strategy') to guide the future use and development of the facility. The Development Strategy identified the existing excavation and stockpile area at the southern end of the WMF site as the location for the next waste cell (known as the new 'South Cell').

Council is now proposing to develop the new South Cell to optimise the remaining landfill air space at the WMF and ensure that the WMF remains open for as long as possible to accept putrescible waste from the Local Government Area (LGA).

The construction of the proposed new South Cell is required to be completed and able to receive waste when the current tipping area reaches capacity in mid to late 2024. Construction would commence following receipt of planning approval and be completed in two stages. Each stage is expected to take four to six months.

The project is deemed regionally significant development (RSD) and is subject to approval by the Hunter and Central Coast Regional Planning Panel under the *NSW Environmental Planning and Assessment Act 1979* (EP&A Act).

This report has been prepared by GHD Pty Ltd (GHD) as part of the environmental impact statement (EIS) for the project. The EIS has been prepared to support the application for approval of the project and address the environmental assessment requirements of the Secretary of the NSW Department of Planning and Environment (the SEARs) dated 24 August 2023.

1.2 The project

1.2.1 Location

The project would be located within the existing Woy Woy WMF. The WMF is about 10 kilometres south of Gosford across Brisbane Water, within the Central Coast LGA (refer Figure 1, Appendix A).

The WMF site consists of:

- Lot 110 DP 755251
- Lot 1 DP 126813
- Lot 1 DP 654885

The project site is about five hectares in area and located on the southern portion of the WMF. It comprises part of Lot 110 DP 755251.

1.2.2 Key features

Key features of the project include:

- Cell construction including excavation and earthworks to form the base of the cell and lining installation
- Development of associated access, stormwater and leachate management infrastructure
- Continuation of current landfilling operations in the new cell location
- Capping, closure and rehabilitation

The project is expected to provide up to an approximate additional 920,000 cubic metres of airspace or 7.7 years of filling capacity (based on current filling rates). It is also expected to generate additional cell construction and cover materials for the ongoing landfilling operations.

No change is proposed to the existing approved annual disposal capacity or waste types as per EPL 6053.

The other existing operations (weighbridge and office/education centre, transfer station, GO facility etc) at the WMF would continue to be operated in conjunction with the project.

Further information on the project is provided in the EIS.

The project site layout is shown on Figure 1 in Appendix A.

1.2.3 Construction overview

Construction of the project would be subject to the methods proposed by the construction contractor, but is expected to involve the following:

- Site establishment: establishment of site environmental controls including sediment and erosion controls
- Earthworks: excavation and grading along the base of the landfill cell in accordance with the requirements of the *Environmental Guidelines: Solid waste landfills* (NSW EPA, 2016)
- Lining and gravel placement: installation of basal, batter and sidewall liners systems
- Development of ancillary infrastructure including access roads, leachate and water management infrastructure

Construction is expected to take about three months to complete.

The construction activities would be carried out during the following hours, consistent with the recommended standard hours of the *Interim Construction Noise Guideline* (NSW DECC, 2009):

- 7 am to 6 pm Monday to Friday
- 8 am to 1 pm Saturdays
- No work on Sundays or Public Holidays

The construction workforce is expected to range between five and ten workers per day.

Further information on the construction of the project is provided in the EIS.

1.3 Purpose of this report

The purpose of this report is to assess the potential for contamination to be present within the project site. The report:

- Assesses the potential for contamination to be present as a result of past and/or present site uses
- Recommends measures to mitigate and manage the potential impacts identified

1.4 Scope and limitations

1.4.1 Scope

The scope of work completed included the following:

- Site history review including review of current and historical aerial photographs, a review of EPA notices under the *Contaminated Land Management Act 1997* and other publicly available information.
- A review of previous investigations pertaining to the WMF and the project site, and any other information held by Council.
- Review of geology, hydrology, hydrogeology and topography information for the WMF and the project site.
- Completion of a site inspection of the project site to identify areas of potential contamination, documenting and mapping important features, and confirming features identified in the desktop review.
- Preparation of this report with reference to the NSW EPA *Consultants Reporting on Contaminated Land* (NSW EPA, 2020) detailing the results of the investigations, discussions and conclusions with respect to the requirement for further investigations or remediation (if required).

This PSI was limited to a review of desktop information and site inspection and did not include sampling of soils, groundwater, sediments or surface water. Section 10.7 (2) and (5) certificates and historical titles were not included in this review.

1.4.2 Limitations

This report: has been prepared by GHD for Central Coast Council and may only be used and relied on by Central Coast Council for the purpose agreed between GHD and Central Coast Council as set out in section 1.1 of this report.

GHD otherwise disclaims responsibility to any person other than Central Coast Council arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

The works were limited to desktop review of site contamination issues and a site inspection. The works did not include inspection of any land outside of Lot 110 in DP 755251. The works did not include investigation of soil or groundwater. This investigation was limited to the assessment of contamination of land.

Inspections undertaken in respect of this Report are limited to visual inspections only and are constrained by the particular site conditions, such as access to roads and tracks and dense vegetation. The recorded condition of hazardous building materials may change over time. This may be due, but not limited to, deterioration, damage or other disturbance. As such, the report records conditions at the time of assessment only.

Site conditions (including the presence of hazardous substances and/or site contamination) may change after the date of this Report. GHD does not accept responsibility arising from, or in connection with, any change to the site conditions. GHD is also not responsible for updating this report if the site conditions change.

GHD has prepared this report on the basis of information provided by Central Coast Council and others who provided information to GHD (including Government authorities), which GHD has not independently verified or checked beyond the agreed scope of work. GHD does not accept liability in connection with such unverified information, including errors and omissions in the report which were caused by errors or omissions in that information.

2. Site information

2.1 Site identification

A summary of identification details for the project site are provided in Table 2.1. The project site location is shown on Figure 1 in Appendix A.

Table 2.1 Site identification summary

Information	Details
Street address/location	Nagari Road Woy Woy NSW 2256
Lot and DP number	Part of Lot 110 DP 755251
Site area	Approximately 5 hectares within the southern portion of the WMF (refer to Figure 1 in Appendix A)
Local Government Area (LGA)	Central Coast Council
Land Use Zoning	SP1 - Special Activities under the Central Coast Local Environment Plan (LEP) 2022
Current site use	<p>The WMF is currently licensed to dispose (by application to land) up to 100,000 tonnes per year of the following waste types (as per EPL 6053):</p> <ul style="list-style-type: none"> – General solid waste (putrescible) – General solid waste (non-putrescible) – Special waste (asbestos waste and waste tyres) <p>The WMF currently accepts asbestos waste, but does not accept hazardous materials, contaminated soil or immobilised materials.</p> <p>The project site is located in the southern portion of the WMF, which has previously been mostly cleared and is currently being used for the excavation and stockpiling of engineering and cover material for the existing landfilling operations.</p>
Proposed Land Use	The project site is to be developed into a new South Cell which would be used to receive waste when the current tipping area reaches capacity.
Surrounding land use	<p>The WMF is located in the township of Woy Woy, approximately 10 kilometres south of Gosford across Brisbane Water within the Central Coast LGA. The project site is surrounded to the west, east, and south by the dense, dry sclerophyll forests of Brisbane Water National Park.</p> <p>Surrounding land uses include:</p> <ul style="list-style-type: none"> – North – Woy Woy Sewage Treatment Plant, tributaries of Woy Woy Creek, Woy Woy Storage Park, Woy Woy Waterfall, Correa Bay Reserve, Dulkara Road Reserve and Everglades Golf course. – East – Brisbane Waters National Park, low density residential area. A natural ridgeline and heavy vegetation provides a physical barrier between the project site and the residential areas to the east. – South – Brisbane Waters National Park, Patonga Creek. – West – Brisbane Waters National Park, and Dillons Farm.

2.2 Site description

The project site (shown in Figure 1 in Appendix A) has an area of approximately 5 hectares. The project site is to be located within the southern portion of the WMF which has previously been mostly cleared and is currently being used for the excavation and stockpiling of engineering and cover material for the existing landfilling operations. The extent of the proposed project maximises the available site area whilst allowing sufficient area for site operational facilities, resource recovery areas and supporting infrastructure such as roads and ponds. The proposed South Cell extent in this area would be generally bounded by the existing excavation faces to the east and west, existing landfill cell to the north, and sufficiently offset from the existing surface water infrastructure to the south.

The western section of the project site has been predominately excavated from a sandstone hillside. This area is bounded by an excavated sandstone escarpment to the west, an internal road to the north and the central area of the project to the east.

The western area includes an unlined, 'L-shaped' dam that appears to have been excavated into bedrock. Sandstone bedrock is visible at the surface in the north and south adjacent to the excavated sandstone escarpment, while the remainder of the area contains ripped sandstone fill at the surface. A haul road partly encircles the north, east and south edges of the area, providing access for council vehicles between the WMF internal road and sediment ponds to the south. A level area north of the dam is used for mattress storage and processing.

The central section of the project site is bounded to the north by an internal road, and to the south by a windrow and embankment that extends down to the surface water ponds to the south.

The north part of the central section includes a grassed slope which rises to the north, which is understood to be underlain by a capped, former landfill cell. A haul road on an embankment of ripped sandstone fill extends from the internal road across the north of the central section of the project site.

The landscape of the remainder of the central section of project site is dominated by ripped sandstone fill at the surface that has been sculpted into wide benches approximately one to three meters high. The benches generally step down from the west to the east. A pond is situated in the southeast part of the central section of the project site and drains to the south through a channel that runs east, parallel to the windrow and eventually drains into the surface water ponds to the south.

The eastern section of the project site is bounded to the north by an internal road, east by an excavated sandstone escarpment, south by a windrow and internal road.

2.3 Site inspection

A GHD environmental scientist completed a site inspection on 28 February 2023. The main features observed at the WMF and the project site during the walkover are summarised in Table 2.2. A photographic log is provided in Appendix B.

Table 2.2 Site inspection summary

Item	Site conditions
Site access and conditions	The WMF is accessed from Nagari Road Woy Woy 2256 NSW 2436. The landform is undulating in nature.
Site buildings and infrastructure	Several structures and areas were inspected during the site-walkover within the WMF: <ul style="list-style-type: none">– Northern leachate and stormwater ponds and associated stormwater drains– Transfer station– Project site and sump, and surface water pond areas– Litter screens/ fences

Item	Site conditions
Ground surface and site drainage	<p>The surface around the structures within the WMF is generally level and sealed. The office is surrounded by gravel to the north and south. No drains were visible and it is assumed surface drainage in the sealed area runs-off with topography to the south.</p> <p>The area of the northern leachate and stormwater ponds, and the associate stormwater drains appeared maintained with only minor fragments of wind-blown plastics.</p> <p>The transfer station at the top of the landform is used for temporarily storing furniture waste, scrap metals, carboards and plastics on a concrete hardstand. Concrete barriers were used to separate the different waste types. Litter screens have been installed to minimise airborne waste. There were several shipping containers located at the transfer station where liquefied petroleum gas (LPG) gas bottles and car and marine batteries were stored.</p> <p>Overlooking the project site, groundwater seepage was visible on both the eastern and western ridge walls. Surface water drains appeared mostly clean with only leaf litter and isolated fragments of waste.</p> <p>The sump areas were partly filled with clay accumulated from rainfall events. There were two areas on the eastern and western corners of the cells hosted mattresses. The mattresses on the east were used as a drainage barrier / silt fence. The mattresses on the west were a stockpile location near a surface water pond. No other dedicated silt fencing was observed.</p> <p>The active tipping area and asbestos tipping area was inspected from the viewing platform. Scattered fragments of plastic were noted on the viewing platform.</p>
Potential sources of contamination	<p>Based on the site inspection the potential sources of contamination identified for the project site include:</p> <ul style="list-style-type: none"> – Contamination associated with fragments of windblown litter from the WMF – Contamination associated with leachate management systems – Contamination associated with potential contaminated groundwater and/or surface water – Contamination associated with the stockpiling and storage of car and marine batteries

2.4 Environmental setting

An overview of the environmental setting of the WMF as obtained from Lotsearch Report LS040543 EP, 17 February 2023 (Appendix C), and publicly available information is presented in Table 2.3.

Table 2.3 Site environmental setting

Setting	Site conditions
Topography and hydrology	<p>The WMF is located within a gully, with site elevations ranging between about 60 to 170 m Australian Height Datum (AHD). It is oriented in a north-south orientation, with two parallel ridges forming the eastern and western boundaries. The general gully direction is from south to north, however local relief varies and is characterised by steep filled slopes and rock outcrops. The WMF is located on a saddle with flows falling to the north towards Woy Woy Creek and the southern area of the WMF falling towards Patonga Creek. Cut off drains are located on the eastern and western ridges to convey external catchment flows and discharge to a tributary of Woy Woy Creek in the northwest of the WMF.</p> <p>Much of the existing WMF drains to a sedimentation pond on the northern end of the WMF, adjacent to the weighbridges and gatehouse. Water is reused for site operations or disposed of by evaporation. In large rainfall events stormwater discharges to a creek to the west.</p> <p>The project site and the southern portion of the WMF drains to sedimentation ponds on the southern end WMF. The ponds have an outlet that discharges water towards Patonga Creek. Patonga Creek, runs through the Brisbane Water National Park for about two kilometres before it becomes tidal, joining the Hawkesbury River close to the latter's mouth.</p> <p>A leachate collection system has been constructed within the historical landfill cells, located on the down slope side of the landfilled areas along the extremities of the WMF (SMEC, 2020). The leachate collected in the south and northwest is directed to sumps where it is pumped to the leachate dam in the north. The leachate is then pumped off-site to the Woy Woy STP to the north of the WMF.</p>

Setting	Site conditions
Geology and soils	<p>Reference to the 1:250,000 Geological Series data set (as provided by Lotsearch) shows that two geological units are mapped on site:</p> <ul style="list-style-type: none"> – Hawkesbury Sandstone (Tuth), described as medium to coarse grained quartz sandstone. – Ungrouped Mesozoic Igneous units (MZui_v) Fine-grained, micaceous, quartz to sandstone. <p>The Hawkesbury Sandstone can be divided into massive and sheet quartz sandstone facies and mudstone facies. A generalised description of these facies (based on Moelle and Dean-Jones 1995) is provided below:</p> <ul style="list-style-type: none"> – The sheet sandstone facies consist of cross-stratified co-sets up to 5 m thick bounded by near horizontal planar bedding surfaces. The grainsize typically ranges from medium to very coarse. – The massive facies is characterised by generally structureless sand bodies with a set thickness of less than 1 m. it is composed of fine to medium grained quartz, occasionally with feldspar, and can contain a high percentage (>50%) of sand claystone fragments. – The mudstone facies comprise about 5% of the formation occurring as 0.5 to 3.0 m thickness units of laminated mudstone (shale). <p>The ungrouped igneous breccia is described as comprising “volcanic breccia, varying amounts of sedimentary breccia, and basalt.</p> <p>Other geological features noted in the region surrounding the WMF:</p> <ul style="list-style-type: none"> – Lineament noted on the Gosford Lake Macquarie 1:100,000 Geological Sheet, approximately 777m from the WMF. <p>The project site is not within an area listed as having potential for naturally occurring asbestos.</p> <p>The NSW Government has classified the landscape as disturbed terrain (NSW Government, 2018).</p> <p>The CSIRO Atlas of Australian Soils shows the soil beneath the WMF is mapped as Mb2, which is classified as a Kandosol. Described as varying from stony hard-setting soils to deeper friable soils. Some may be texture contrast and have a bleached subsurface (A2) horizon.</p> <p>Central Coast Local Environmental Plan 2022 lists the WMF as having an acid sulfate soil plan class classification of 5 at the northern end of the WMF near the weighbridges and gatehouse. Acid sulfate soils are not typically found in Class 5 areas. Areas classified as Class 5 are located within 500 m on adjacent class 1,2,3 or 4 land. The remainder of the WMF, including the location of the proposed project, is listed as not at risk of acid sulfate soils occurrence.</p>

Setting	Site conditions
Hydrogeology and groundwater bore search	<p>Based on observations and GHD's understanding of the environmental setting of the WMF, groundwater would generally be expected to flow in a northern direction at the northern section of the WMF towards Woy Woy Creek. Groundwater in the southern section of the WMF would generally be expected to flow in a southerly direction towards Patonga Creek.</p> <p>The aquifers at the WMF and in the surrounding area are described as porous, extensive aquifers of low to moderate productivity.</p> <p>Lotsearch obtained database information from the NSW Office of Water database on 17 February 2023. The results of this search indicated there are six registered groundwater wells located on the WMF. Well details (where available) are summarised below.</p> <p>Located at the WMF</p> <ul style="list-style-type: none"> – Bore ID – GW102124 - Bore type – unknown; Standing Water Level – 3.9 m (AHD); Bore depth 10 m (AHD) – Bore ID – GW102123 - Bore type – unknown; Standing Water Level – 2.5 m (AHD); Bore depth 9.9 m (AHD) – Bore ID – GW102119 - Bore type – unknown; Standing Water Level – unknown; Bore depth 9.55 m (AHD) – Bore ID – GW102114 - Bore type – unknown; Standing Water Level – unknown; Bore depth 15.00 m (AHD) – Bore ID – GW102118 - Bore type – unknown; Standing Water Level – unknown; Bore depth 9.40 m (AHD) – Bore ID – GW102120 - Bore type – unknown; Standing Water Level – unknown; Bore depth 9.78 m (AHD) – Bore ID - GW102117 – Bore type – unknown; Standing Water Level – unknown; Bore depth 15 m (AHD) <p>Located outside the WMF</p> <ul style="list-style-type: none"> – Bore ID - GW203940 – Bore type - unknown; Standing Water Level – 0.00 (AHD); Bore depth 9.50m (AHD); Located 841m east of the WMF. – Bore ID - GW073485 – Bore type - unknown; Standing Water Level – unknown; Bore depth 5.79 m (AHD); Located 864m east of the WMF. – Bore ID - GW204955 – Bore type - unknown; Standing Water Level – unknown; Bore depth 5.00 m (AHD); Located 903m east of the WMF. – Bore ID - GW200428 – Bore type - unknown; Standing Water Level – unknown; Bore depth 6.00 m (AHD); Located 988m north-east of the WMF. – Bore ID - GW201239 – Bore type - unknown; Standing Water Level – unknown; Bore depth 6.00 m (AHD) Located 995m south-east of the WMF. <p>Given that the WMF is located within a bushland setting and adjacent to a rural area, not serviced by a reticulated water supply, it is considered possible that the groundwater within 1 km of the WMF could be utilised for domestic uses, including potential consumption and stock watering.</p> <p>The Groundwater Dependent Ecosystems Atlas (Bureau of Meteorology) as reviewed in the Lotsearch report indicated an area on the north-western boundary of the WMF on the western side of Nagari Road as having moderate potential for a groundwater dependent ecosystem. The report also indicated an area on the northern side of Woy Woy Creek as having high potential for a groundwater dependent ecosystem, and an area 400 m southeast of the project site as having a low potential for a groundwater dependant ecosystem.</p>

3. Desktop information

The following section provides an overview of the desktop information for the WMF as obtained from Lotsearch Report LS040543_EP, 17 February 2022 (Appendix C) and publicly available information.

3.1 Historical aerial photographs

Historical aerial photographs were examined from the years 1941, 1962, 1965, 1970, 1975, 1980, 1985, 1991, 1994, 2003, 2007, 2010, 2016, 2019, 2020. The historical aerial photographs are provided in the Lotsearch report in Appendix C and a review summary for the WMF, project site and its surrounds are provided in Table 3.1

Table 3.1 Review of historical aerial photographs

Photograph	Site observations
1941 Black and white	<p>WMF and project site – Clearings can be seen north and south of Dillons Fire Trail, at the location of the future office, weighbridge and leachate pond. The imagery is incomplete and the project site is not included in the image.</p> <p>Surrounding area – Nagari Road is visible north and west of the WMF. A tributary of Woy Woy Creek is visible, as is Patonga Creek. The surrounding vegetation is predominantly dry sclerophyll forest and remains otherwise undisturbed.</p> <p>NB: The image supplied for 1941 is incomplete and only displays the northern area of the WMF and surrounding area.</p>
1962 Black and white	<p>WMF and project site – The location of the future GO area has a distinct area of disturbance and clearing of vegetation, with an access track leading to the area of disturbance on the north-eastern side. A second smaller area of disturbance is visible north of the larger clearing, however as the imagery is incomplete it is undetermined how extensive the second clearing is.</p> <p>Surrounding area – The creek bed of Patonga Creek is visible 50m south of the location of the proposed project. The surrounding vegetation and rocky outcrops appears undisturbed.</p> <p>NB: The image supplied for 1962 is incomplete and only displays the southern area of the WMF and surrounding area.</p>
1965 Black and white	<p>WMF and project site – The disturbance north of Nagari Road now has vegetation growing. Two distinct areas of disturbance are visible in the future locations of the current tipping area, and the GO area. The disturbance in vegetation towards the south of the WMF within the area of the project site.</p> <p>Surrounding area – Patonga Creek is visible south of the WMF. The footprint of Dillon's Fire Trail has changed west of the WMF. The remaining vegetation surrounding the WMF appears otherwise undisturbed.</p>
1970 Black and white	<p>WMF and project site – Vegetation from the previous disturbance north of Dillons Fire Trail continues to thicken, as has the vegetation in the two disturbed areas in the future locations of the current tipping area, and the GO area. Vegetation appears to have thickened within the proposed site.</p> <p>Surrounding area – Surrounding area and vegetation appears largely unchanged.</p>
1975 Black and white	<p>WMF and project site – The footprint of clearings south of Dillons Fire Trail have expanded and an access track is now clearly visible traversing north-south across the project site.</p> <p>Surrounding area – Van Dahl's Fire Trail has been constructed south of the WMF, the vegetation surrounding the WMF appears otherwise unchanged.</p>
1985 Black and white	<p>WMF and project site - The footprint of the cleared area has further increased. The vegetation separating the two distinct clearings has been removed and clearings are well-defined. Tracks have been constructed surrounding the cleared areas. The footprint of Dillons Fire Trail has changed at the north end of the WMF. Much of the project site has been cleared of vegetation. Structures may be present though image resolution is low.</p> <p>Surrounding area – Van Dahl's Fire Trail is no longer visible, and the surrounding vegetation appears otherwise unchanged.</p>

Photograph	Site observations
1991 Colour	<p>WMF and project site - Structures are now visible in the location of the future weighbridge. The footprint of the WMF has further increased. The access track on the western side of the WMF is no longer visible. A road has been constructed where the eastern track was previously, and a main access track has been constructed in the location of the future excavation and stockpile area, between the cleared area and the eastern boundary. Within the project site, the footprint of cleared vegetation has increased to the east, and vegetation edges are more sharply defined.</p> <p>Surrounding area – Van Dahl's Fire Trail south of the WMF is visible. The surrounding area and vegetation remains otherwise largely unchanged.</p>
1994 Colour	<p>WMF and project site – The location of the main access road has moved to the east. Additional dams have been constructed, one in the location of the future leachate pond, a minor dam located centrally in the WMF, and a third dam has been constructed in the south-western corner. Within the project site, the footprint of cleared vegetation has increased to the south and west.</p> <p>Surrounding area – surrounding areas and vegetation appear largely unchanged from the previous image.</p>
2003 Colour	<p>WMF and project site – The footprint of the WMF has further increased. Multiple additional access tracks have been constructed on the WMF, both sealed and unsealed in nature. The footprint of the dam in the northern end of the WMF has expanded, and an additional dam has been constructed immediately south of the existing dam. The footprint of the dam in the south of the WMF has increased. The cleared vegetation within the project site has decreased, with vegetation below the surface water dam recovering in a northern direction.</p> <p>Surrounding area– The surrounding area and vegetation appears largely unchanged.</p>
2007 Colour	<p>WMF and project site – The footprints of the WMF and the structure on the northern boundary have increased. The access track on the eastern boundary has widened. An L-Shaped structure has been constructed centrally on the WMF. An access track has been constructed towards the south of the WMF, then follows the western boundary. The remaining area within the project site appears largely unchanged.</p> <p>Surrounding area – Surrounding area and vegetation appears largely unchanged.</p>
2010 Colour	<p>WMF and project site – The sealed area along with the generator enclosures has been constructed in the north-eastern corner of the Site. A square structure has been constructed north of the L-shaped structure. Additional access tracks have been constructed in the south of the WMF. The project site appears largely unchanged.</p> <p>Surrounding area – Surrounding area and vegetation appears largely unchanged.</p>
2016 Colour	<p>WMF and project site - The office building has been constructed south of the weighbridge building. A structure east of the weighbridges has been removed. A structure has been constructed on the western side of the leachate ponds. A sealed road has been constructed between the existing road and the western boundary. The L-shaped structure has been removed, and a linear structure has been constructed in its place. The viewing platform area located on the eastern boundary has been constructed as well as the associated structure. The transfer station has been constructed and the area where the GO area will be, has been cleared. The excavation and stockpile area has been cleared, and the two southern sediment ponds have been constructed, along with associated structures and access roads within the project site.</p> <p>Surrounding area – The surrounding area and vegetation appears largely unchanged.</p>
2019 Colour	<p>WMF and project site – The footprint of the central tipping area has expanded north and west. Access tracks within this area have been removed and new tracks have been constructed to boarder the central tipping area. A dam has been constructed on the eastern side of the excavation and stockpile area. The project site appears largely unchanged.</p> <p>Surrounding area – Dillon's Fire Trail appears to have been sealed. The remaining surrounding area and vegetation remains otherwise unchanged.</p>
2022 Colour	<p>WMF and project site – Current tipping area has expanded north and two dams have been constructed on the western side of the excavation / stockpile area, and the eastern dams appear to have been filled. The small vegetated strip north of the surface water dams within the project site has decreased in size, and an L-shaped surface water dam has been constructed on the western side of the project site.</p> <p>Surrounding area – The surrounding area and vegetation appears largely unchanged.</p>

Based on the aerial photograph the area of the WMF was used as a quarry up until 1974. Construction of initial structures on the WMF occurred some time prior to 1991, with most of the current WMF infrastructure being constructed between 2003 and 2016. The project site was used as an excavation and stockpile area prior to 2016.

3.2 Historical topographic maps

Topographic maps were viewed from 1920-21, 1942, 1975 and 2015. A summary of the review is provided below:

1920-21

- The Main Northern Railway corridor and railway tunnel are visible approximately 500 m north of the WMF, south of Woy Woy Creek.

1942

- The Main Northern Railway corridor and tunnel are still visible, as is the current township of Umina, approximately 1500 m east of the WMF. A gravel pit is noted 1000 m north of the WMF as is Ettalong Swamp 2000 m to the south-east.

1975

- The Main Northern Railway corridor is still noted, as is the gravel pit and Ettalong Swamp. A sanitary depot is located approximately 1500 m south of the WMF and Ettalong Swamp, an abattoir is listed 500 m to the north, south of Woy Woy creek, and a golf course is noted approximately 1700 m north east of the WMF.

2015

- The Main Northern Railway corridor remains visible. The sewerage works is visible, approximately 750m north of the WMF, south of the rail corridor. The abattoir is no longer visible; however, the scale of the 2015 map is larger, meaning it was unable to be determined if the gravel pit and swamp were still present.

3.3 NSW Environment Protection Authority

A search of the datasets maintained by NSW EPA including notices under the *Contaminated Land Management Act 1997* (CLM Act) and *Protection of the Environment Operations Act 1997* (POEO Act) Environment Protection License Register was carried out. In addition to the licenced and former licenced activities, the search results indicated two licenced, and once former licenced activities under the POEO Act 1997, within the search buffer. Results are summarised in Table 3.2.

Table 3.2 EPA Notices

	Details of EPA notices
List of NSW contaminated sites notified to EPA	Nil notices
Contaminated land record of notices	Nil notices
POEO licence register	<p>On-site:</p> <ul style="list-style-type: none"> – Council is listed as undertaking waste disposal by application to land on the WMF. – Council is listed as undertaking other activities on the WMF <p>Off-site</p> <ul style="list-style-type: none"> – Council is listed as undertaking sewerage treatment processing by large plants activities approximately 266 m north of the WMF – Sydney Trains is listed as undertaking railway systems activities approximately 810m North of the WMF
Other delicensed, surrendered, or revoked licensed activities	<p>On-site:</p> <ul style="list-style-type: none"> – Luhrmann Environment Management Pty Ltd, Robert Orchard, and Sydney Weed and Pest Management Pty Ltd are listed in the application of herbicides in waterways throughout NSW <p>Off-site:</p> <ul style="list-style-type: none"> – Frederick Nichols is listed as slaughtering or processing of animals approximately 867 m north of the WMF

3.4 Other information

Other information provided in the Lotsearch report in Appendix C is summarised in Table 3.3.

Table 3.3 Other search information

	Details of search results
Former Gas Works	Nil records
Waste Management Facilities	Central Coast Council is listed as undertaking waste disposal by application to land on the WMF
Liquid Fuel Facilities	Nil records
Investigation or Management for Per- and Poly-Fluoroalkyl Substances	Nil records
Current Mining or Exploration Titles or Applications	Nil records
Motor Garages, Dry Cleaners or Service Stations	Nil records
Historic business directory records of note	Nil records

3.5 Review of previous reports

A review of previous reports provided by Council was undertaken as part of the PSI. Limited information regarding the potential presence or sources of contamination was contained in the reports reviewed. A summary of the relevant information obtained from these reports is provided below:

Environmental Impact Statement (EIS) for the Extension to Sandstone Quarry – Gosford City Council. Mitchell McCotter, June 1998

According to the EIS the WMF was previously utilised as a sandstone quarry. Woy Woy Quarry commenced operations in the 1920's and was quarried intermittently for sandstone and basalt. Potential blasting was highlighted to occur during construction, and during ongoing operations of the quarry.

The EIS outlines hazardous materials temporarily held during the blasting operations: TNT boosters, non-electric detonators, ammonium nitrate, emulsion phase gasser, dissolved acetylene, oxygen compressed oxygen, and diesel.

Legal Review – Gosford City Council. P J Donnellans, July 1994

The Legal review, which details the consents for landfill at Woy Woy, notes that the WMF has been used not only as a landfill, but as a quarry and in 1933 as a deposition point for the disposal of nightsoil. The review details that prior to the EP&A Act, Councils consent procedures were informal, noting that council often granted consent to itself relating to the use of council-owned land.

Environmental Landfill Monitoring Annual Report – Coffey Services Australia Pty Ltd (Coffey) - October 2020 and Landfill Environmental Monitoring Annual Report – Tetra Tech (formerly Coffey) – December 2021

- The Coffey/Tetra Tech 2020 and 2021 reports detail the annual results for the environmental monitoring program undertaken at WMF. Monitoring was undertaken in accordance with WMF's NSW Environmental Protection Licence (EPL) (No.60535) and included:
 - Groundwater monitoring at five locations and one leachate pond.
 - Surface water sampling at six locations.
 - Subsurface gas monitoring at five locations.
 - Surface gas monitoring across the landfill surface

Figure 1 Appendix A – shows the indicative locations of all sampling points.

- According to the 2022 and 2021 reports:
 - Minor exceedances of the ANZG 95% Level of Protection for Freshwater for aluminium and zinc in groundwater occurred at several of the monitoring locations (W2 and W7 for aluminium and WW2, WW3, and W6 for zinc)
 - Copper exceeded the ANZG 95% Level of Protection for Freshwater at WW1
 - Ammonia exceeded the ANZG 95% Level of Protection for Freshwater within the onsite sedimentation pond (S05). According to Coffey/Tetra Tech S05 has historically reported ammonia concentrations above the adopted assessment criteria. Concentrations generally have remained below 10 mg/L except for one historical high reported in 2005 (36.2 mg/L). This location when it overflows discharges to Correa Creek via sample location S08. As stated by Corry/Tetra Tech ammonia concentrations at S08 have historically remained below the assessment criteria.
 - Leachate pond sample L03 reported an ammonia concentration of 310 mg/L, which Coffey/Tetra Tech state indicated that biological degradation is still occurring within the waste mass. Phosphorus and aluminium concentrations were also elevated within the pond.
 - Landfill gas was not detected any of the perimeter wells, although several exceedances of methane surface gas assessment criteria were noted.

4. Preliminary conceptual site model

A preliminary Conceptual Site Model (CSM) was developed to provide an understanding of the potential for exposure to contaminants within the project site. The CSM draws together historical data, specific and regional geological, hydrogeological, hydro-geochemical and contamination information to identify potential contamination sources, migration and exposure pathways and sensitive receptors for the project site.

4.1 Sources

Based on the results of the desktop assessment, the following potential contamination sources were identified:

- Leachate management systems associated with WMF operations
- Fragments of windblown litter or dust from the WMF operations
- Potential contaminated groundwater and/or surface water as a results of WMF operations
- Stockpiling and storage of car and marine batteries
- Potential use of imported fill materials from unknown sources
- Potential use of herbicides or pesticides on the WMF and adjacent properties
- Explosives used during historical quarrying operations
- Use of machinery and storage of fuels and oils
- Historical disposal of nightsoil

The primary contaminants of potential concern (CoPC) from these sources are:

- Acids
- Nutrients (ammonia, phosphorus and nitrogen compounds)
- Metals
- Total recoverable hydrocarbons (TRH)
- Benzene, toluene, ethyl benzene and total xylene (BTEX)
- Polyaromatic hydrocarbons (PAHs)
- Asbestos
- Organochlorine pesticides (OCPs) and organophosphate pesticides (OPPs)
- Polychlorinated biphenyls (PCB)
- Per- and poly-fluoroalkyl substances (PFAS)
- Explosive residues (ammonia nitrate)
- Microbial pathogens

4.2 Pathways

The primary pathways by which current and future receptors could be exposed to the potential sources of contamination are considered to be:

- Direct contact (including ingestion) with potentially contaminated soil, surface water or groundwater
- Inhalation of potential contaminants in soil, if disturbed (particularly asbestos if present)
- Lateral migration of potential contaminants via surface water run-off to impact surface water
- Vertical and horizontal migration of potential contaminants within the groundwater
- Discharge of potentially sediment laden water from the leachate management system, surface water ponds and stormwater ponds

4.3 Potential receptors

When evaluating potential adverse health/environmental effects from exposure to a contaminated site, all potentially exposed populations should be considered. The key potential receptors are considered to include:

Human health receptors

- Current and future workers, visitors and contractors at the WMF
- Intrusive maintenance or construction workers during construction phase of the project
- Current and future occupants and visitors of surrounding properties (e.g. residents occupying or visiting surrounding properties)
- Recreational users of nearby water bodies and Brisbane Waters National Park
- Potential off-site users of groundwater (consumption or stock watering)

Environmental receptors

- Flora and fauna within the WMF site and surrounding land and waterways
- Surface water in Patonga Creek, located 100 m south of the WMF
- Woy Woy Creek to the north
- Groundwater beneath and downgradient of the WMF
- Brisbane Waters National Park which borders the WMF to the east, south, and west

4.4 Potential for contamination

Table 4.1 summarises the potential for contamination based on the results of the desktop review and site inspection.

Table 4.1 Potential for contamination

Source	Rationale/detail	Potential contaminants	Potential for contamination
Leachate management systems	Contamination associated with leachate management systems, including potential contamination of groundwater or surface water.	Heavy metals, ammonia, nitrogen compounds, TRH, BTEX, PAHs, PFAS, OCPs, OPPs, PCBs	Low (leachate management undertaken in accordance with licence requirements, no significant contamination issues reported to date)
Groundwater and surface water	Contamination associated with potential contamination of groundwater or surface water.	Heavy metals, ammonia, phosphorus	Low (monitoring results indicate minor exceedances of guidelines)
Landfill operations	Contaminates associated with windblown litter or dust from WMF operations.	Asbestos, heavy metals, TRH, BTEX, PAHs, OCPs, OPPs, PCBs, PFAS	Low (activities undertaken in accordance with licence requirements, no significant contamination issues reported to date)
Battery storage	Contamination associated with the stockpiling and storage of car and marine batteries.	Acids	Low (no evidence of major spills was noted in the site walk-over with batteries stored in a shipping container)
Potential use of herbicides, pesticides	Use of pesticides or herbicides on the WMF or adjacent properties	Arsenic, OCPs and OPPs	Low (on site pesticide and herbicide use commensurate with the usage of the site as a WMF)
Storage, spillage or leakage of fuels / oils	Use of machinery and storage of fuels and oils on the WMF.	TRH, BTEX, PAHs, heavy metals and PCBs	Low (no evidence of major spills observed).
Explosives	Explosives used during historical quarrying carried out at the WMF.	Ammonia nitrate	Low (residues are expected to be minor in nature)

Source	Rationale/detail	Potential contaminants	Potential for contamination
Nightsoil	Contamination associated with the historical disposal of nightsoil.	TRH, BTEX, PAHs, heavy metals, microbial pathogens	Low (no evidence of night soil was observed)
Potential use of imported fill materials	Use of imported fill materials from unknown sources.	Asbestos, heavy metals, TRH, BTEX, PAHs, OCPs, OPPs, PCBs, PFAS	Low (imported materials likely used as landfill cover as part of WMF operations)

5. Conclusions and recommendations

5.1 Conclusions

In accordance with the objectives detailed in Section 1.2, and based on the information contained within this assessment and limitations outlined in Section 1.4, the following conclusions are made:

- The project site is located within the southern portion of the WMF and has an area of approximately 5 hectares. The project site has been mostly cleared and is currently being used for excavation and stockpiling of engineering and cover material for the existing landfilling operations.
- Based on the historical review, the area of the WMF was originally a quarry up until 1974. Construction of initial structures on the WMF occurred some time prior to 1991, with most of the current WMF infrastructure being constructed between 2003 and 2016. The project site was used as an excavation and stockpile area prior to 2016.

Based on the historical desktop review and site inspection, the following potential sources of contamination have been identified:

- Leachate management systems associated with WMF operations
- Fragments of windblown litter or dust from the WMF operations
- Potential contaminated groundwater and/or surface water as a results of WMF operations
- Stockpiling and storage of car and marine batteries
- Potential use of imported fill materials from unknown sources
- Potential use of herbicides or pesticides on the WMF and adjacent properties
- Explosives used during historical quarrying operations
- Use of machinery and storage of fuels and oils
- Historical disposal of nightsoil

Based on the investigations to date and taking into account the proposed future land use there is a low potential for contamination to be present within the project site. The potential impacts of contamination on the project during construction and operation of the project is also considered to be low.

5.2 Management and mitigation measures

Based on the findings of this PSI it is recommended that a Construction Environmental Management Plan be prepared prior to the construction of the project, and include an 'unexpected finds protocol', to manage any potential impacts associated with the disturbance of potentially contaminated soils (if encountered) during works of the project. It should include actions to cease work on discovery, test suspected contaminated material, and safely store, treat, and dispose of the material as relevant. The procedure should also address any legislative requirements for reporting and/or approval.

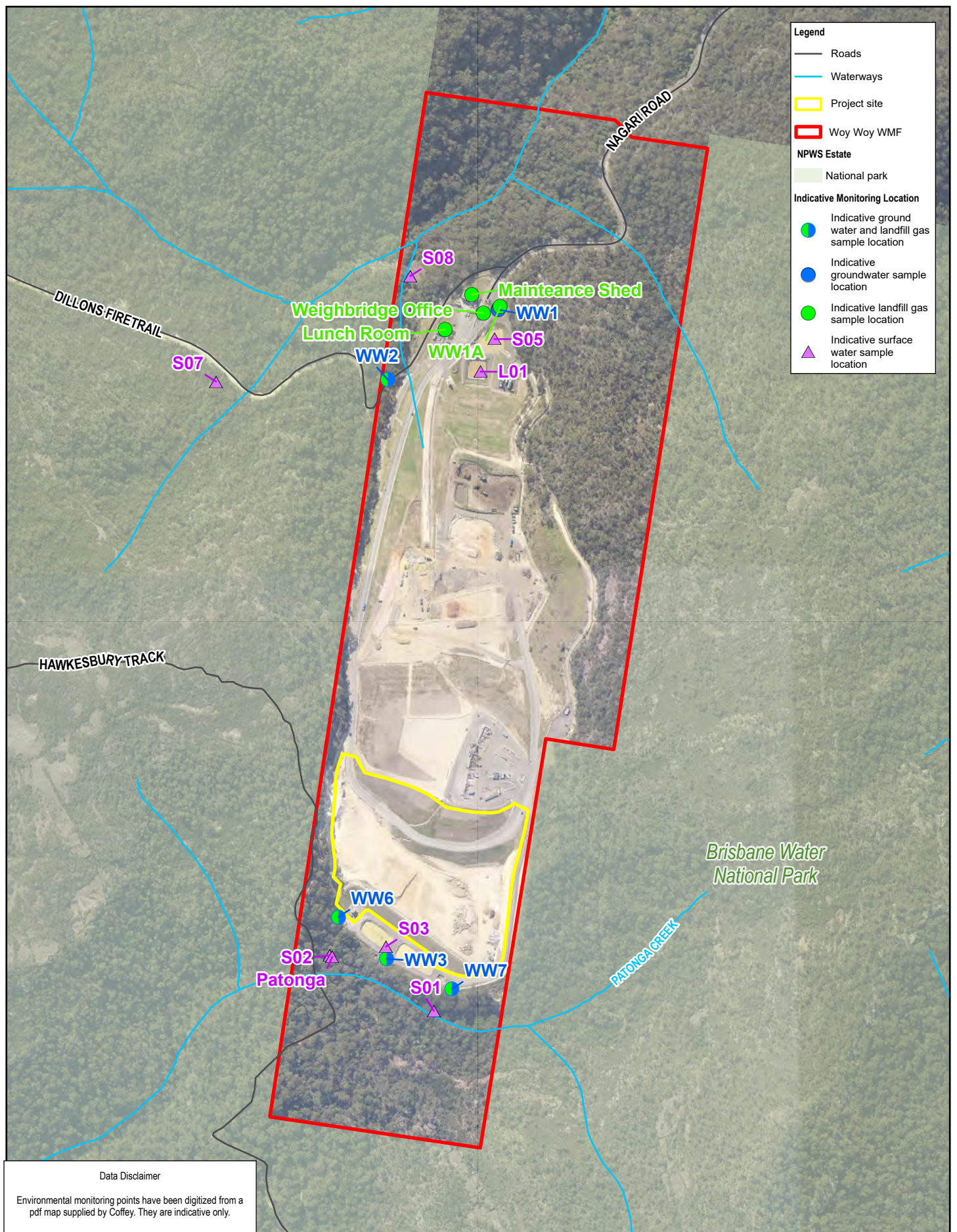
6. References

- GHD 2023. *DRAFT Scoping Report. South Cell at Woy Woy Waste Management Facility*. GHD Pty Ltd. 2023
- GHD 2023. *DRAFT Geotechnical Investigation Report. South Cell at Woy Woy Waste Management Facility*. GHD Pty Ltd. 2023
- Lotsearch 2022. *Enviro Professional Report. LS040543 EP*. 17 February 2023
- URS 2007 *Environmental Assessment. Woy Woy Alternative Waste Technology and Composting Facilities*. August 2007
- Coffey 2021. *2020 Annual Environmental Landfill Monitoring Report – Woy Woy Landfill*. Coffey Services Australia Pty Ltd 21 January 2021
- Coffey 2021 *Central Coast Council Landfill Environmental Monitoring Waste Management Facility October 2021 Annual Report*. Tetra Tech Coffey 24 December 2021
- NEPC (2013). *National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended by the National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013 (No. 1)*, National Environment Protection Council, May 2013
- NSW EPA (2022), *Contaminated Land Guidelines: Sampling Design Part 1 – Application*, 2022
- NSW EPA (2014), *Waste Classification Guidelines, Part 1: Classifying Waste*, 2014
- NSW EPA (2015), *Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997*, 2015
- NSW EPA (2017), *Guidelines for the NSW Site Auditor Scheme (3rd Edition)*, October 2017
- NSW EPA (2020), *Guidelines for Consultants Reporting on Contaminated Sites*, August 2020
- State Environmental Planning Policy (Resilience and Hazards) 2021*

Appendices

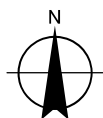
Appendix A

Figures



Paper Size ISO A4
0 50 100 150 200
Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56



Central Coast Council
Preliminary Site Investigation, South Cell
at Woy Woy Waste Management Facility

Environmental monitoring
sample points

Project No. 12595244
Revision No. B
Date 14/6/2023

FIGURE 1

Appendix B

Photographs



Site north – Facing northern waste landform. Leachate pond & LFG generator.



Site north – Facing northern waste landform. Leachate pond.



Site north – Northern stormwater pond.



Site north – Stormwater pond. Weighbridge visible in background.



Site north – Stormwater pond.



Site south – South cell facing the western wall.



Site center– Transfer station and location of stored batteries and marine batteries.



Site south – South cell facing the western wall.



Site south-east – Access road between south cell and transfer station, facing north.



Site south – access road between south cell and transfer station, facing southeast corner of south cell.



Site south – Facing the northern batter of the south cell and the access road.



Site south – South cell facing south overlooking the site boundary and stormwater pond.



Site south – South cell stormwater pond.



Site south – South cell facing western wall.



Site south – South cell facing east, stormwater diversion using mattresses.



Site south – South cell leachate pump.



Site south – Stormwater pond.



Site south – South cell facing west towards western wall. Bund between cell and platform to the south.



Site south – South cell western wall stormwater pond and mattress stockpile.



Site south – South cell facing eastern wall.



Site south – South cell western wall stormwater pond and mattress stockpile.



Site south – South cell western wall.



Site south – South cell facing western wall.



Site south – South cell facing eastern wall.



Road under railway before turning onto Nagari Road.



Nagari Road.



Nagari Road – Site entrance with weighbridge and northern landform.



Nagari Road – Site gate.



Site east – Facing north-west over the current filling area.



Site west – Western face of the current landfilling area.

Appendix C

Lotsearch Report



LOTSEARCH

LOTSEARCH ENVIRO PROFESSIONAL

Date: 17 Feb 2023 10:44:13

Reference: LS040543 EP

Address: Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

Disclaimer:

The purpose of this report is to provide an overview of some of the site history, environmental risk and planning information available, affecting an individual address or geographical area in which the property is located. It is not a substitute for an on-site inspection or review of other available reports and records. It is not intended to be, and should not be taken to be, a rating or assessment of the desirability or market value of the property or its features.

You should obtain independent advice before you make any decision based on the information within the report.

The detailed terms applicable to use of this report are set out at the end of this report.

Dataset Listing

Datasets contained within this report, detailing their source and data currency:

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features On-site	No. Features within 100m	No. Features within Buffer
Cadastre Boundaries	NSW Department of Customer Service - Spatial Services	14/02/2023	14/02/2023	Quarterly	-	-	-	-
Topographic Data	NSW Department of Customer Service - Spatial Services	22/08/2022	22/08/2022	Annually	-	-	-	-
List of NSW contaminated sites notified to EPA	Environment Protection Authority	13/02/2023	10/01/2023	Monthly	1000m	0	0	0
Contaminated Land Records of Notice	Environment Protection Authority	25/01/2023	25/01/2023	Monthly	1000m	0	0	0
Former Gasworks	Environment Protection Authority	06/12/2022	14/07/2021	Quarterly	1000m	0	0	0
National Waste Management Facilities Database	Geoscience Australia	26/05/2022	07/03/2017	Annually	1000m	1	1	1
National Liquid Fuel Facilities	Geoscience Australia	23/08/2022	13/07/2012	Annually	1000m	0	0	0
EPA PFAS Investigation Program	Environment Protection Authority	13/02/2023	23/09/2022	Monthly	2000m	0	0	0
Defence PFAS Investigation & Management Program - Investigation Sites	Department of Defence	14/02/2023	14/02/2023	Monthly	2000m	0	0	0
Defence PFAS Investigation & Management Program - Management Sites	Department of Defence	14/02/2023	14/02/2023	Monthly	2000m	0	0	0
Airservices Australia National PFAS Management Program	Airservices Australia	13/02/2023	13/02/2023	Monthly	2000m	0	0	0
Defence 3 Year Regional Contamination Investigation Program	Department of Defence	02/09/2022	02/09/2022	Quarterly	2000m	0	0	0
EPA Other Sites with Contamination Issues	Environment Protection Authority	16/02/2022	13/12/2018	Annually	1000m	0	0	0
Licensed Activities under the POEO Act 1997	Environment Protection Authority	25/01/2023	25/01/2023	Monthly	1000m	2	2	4
Delicensed POEO Activities still regulated by the EPA	Environment Protection Authority	25/01/2023	25/01/2023	Monthly	1000m	0	0	0
Former POEO Licensed Activities now revoked or surrendered	Environment Protection Authority	25/01/2023	25/01/2023	Monthly	1000m	3	3	4
UBD Business Directories (Premise & Intersection Matches)	Hardie Grant			Not required	150m	0	0	0
UBD Business Directories (Road & Area Matches)	Hardie Grant			Not required	150m	-	0	0
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Premise & Intersection Matches)	Hardie Grant			Not required	500m	0	0	0
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Road & Area Matches)	Hardie Grant			Not required	500m	-	0	0
Points of Interest	NSW Department of Customer Service - Spatial Services	19/10/2022	19/10/2022	Quarterly	1000m	1	1	7
Tanks (Areas)	NSW Department of Customer Service - Spatial Services	19/10/2022	19/10/2022	Quarterly	1000m	0	0	0
Tanks (Points)	NSW Department of Customer Service - Spatial Services	19/10/2022	19/10/2022	Quarterly	1000m	0	0	0
Major Easements	NSW Department of Customer Service - Spatial Services	16/02/2023	16/02/2023	Quarterly	1000m	0	0	6
State Forest	Forestry Corporation of NSW	16/08/2022	14/08/2022	Annually	1000m	0	0	0
NSW National Parks and Wildlife Service Reserves	NSW Office of Environment & Heritage	16/02/2023	31/12/2022	Annually	1000m	0	1	1
Hydrogeology Map of Australia	Commonwealth of Australia (Geoscience Australia)	29/08/2022	19/08/2019	Annually	1000m	1	1	1
Temporary Water Restriction (Botany Sands Groundwater Source) Order 2018	NSW Department of Planning, Industry and Environment	28/03/2022	23/02/2018	Annually	1000m	0	0	0
National Groundwater Information System (NGIS) Boreholes	Bureau of Meteorology; Water NSW	14/02/2023	14/02/2023	Annually	2000m	7	7	141

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features On-site	No. Features within 100m	No. Features within Buffer
NSW Seamless Geology Single Layer: Rock Units	Department of Regional NSW	17/02/2022	01/05/2021	Annually	1000m	3	3	9
NSW Seamless Geology – Single Layer: Trendlines	Department of Regional NSW	17/02/2022	01/05/2021	Annually	1000m	0	0	1
NSW Seamless Geology – Single Layer: Geological Boundaries and Faults	Department of Regional NSW	17/02/2022	01/05/2021	Annually	1000m	0	0	0
Naturally Occurring Asbestos Potential	NSW Dept. of Industry, Resources & Energy	04/12/2015	24/09/2015	Unknown	1000m	0	0	0
Atlas of Australian Soils	Australian Bureau of Agriculture and Resource Economics and Sciences (ABARES)	19/05/2017	17/02/2011	As required	1000m	1	1	1
Soil Landscapes of Central and Eastern NSW	NSW Department of Planning, Industry and Environment	18/08/2022	27/07/2020	Annually	1000m	4	5	10
Environmental Planning Instrument Acid Sulfate Soils	NSW Department of Planning, Industry and Environment	14/12/2022	02/12/2022	Monthly	500m	1	-	-
Atlas of Australian Acid Sulfate Soils	CSIRO	19/01/2017	21/02/2013	As required	1000m	1	1	3
Dryland Salinity - National Assessment	National Land and Water Resources Audit	18/07/2014	12/05/2013	None planned	1000m	0	0	0
Mining Subsidence Districts	NSW Department of Customer Service - Subsidence Advisory NSW	14/02/2023	14/02/2023	Quarterly	1000m	0	0	0
Current Mining Titles	NSW Department of Industry	13/02/2023	13/02/2023	Monthly	1000m	0	0	0
Mining Title Applications	NSW Department of Industry	13/02/2023	13/02/2023	Monthly	1000m	0	0	0
Historic Mining Titles	NSW Department of Industry	13/02/2023	13/02/2023	Monthly	1000m	13	13	13
Environmental Planning Instrument SEPP State Significant Precincts	NSW Department of Planning, Industry and Environment	15/11/2021	07/12/2018	Monthly	1000m	0	0	0
Environmental Planning Instrument Land Zoning	NSW Department of Planning, Industry and Environment	15/12/2022	02/12/2022	Monthly	1000m	1	2	29
Commonwealth Heritage List	Australian Government Department of the Agriculture, Water and the Environment	03/06/2022	13/04/2022	Annually	1000m	0	0	0
National Heritage List	Australian Government Department of the Agriculture, Water and the Environment	03/06/2022	13/04/2022	Annually	1000m	1	2	2
State Heritage Register - Curtilages	NSW Department of Planning, Industry and Environment	18/10/2022	01/07/2022	Quarterly	1000m	0	0	1
Environmental Planning Instrument Local Heritage	NSW Department of Planning, Industry and Environment	14/12/2022	02/12/2022	Monthly	1000m	0	1	2
Bush Fire Prone Land	NSW Rural Fire Service	13/02/2023	25/10/2022	Weekly	1000m	2	2	3
Vegetation of Gosford LGA	Council of the City of Gosford / NSW Office of Environment and Heritage	08/12/2014	31/12/2009	Annually	1000m	3	4	15
Ramsar Wetlands of Australia	Australian Government Department of Agriculture, Water and the Environment	28/03/2022	19/03/2020	Annually	1000m	0	0	0
Groundwater Dependent Ecosystems	Bureau of Meteorology	28/10/2022	26/10/2022	Annually	1000m	1	1	3
Inflow Dependent Ecosystems Likelihood	Bureau of Meteorology	28/10/2022	26/10/2022	Annually	1000m	1	1	3
NSW BioNet Species Sightings	NSW Office of Environment & Heritage	13/02/2023	13/02/2023	Weekly	10000m	-	-	-

Site Diagram

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256



Legend <div><div></div> Site Boundary</div> <div><div></div> Internal Parcel Boundaries</div>	Total Area: 302422m ² Total Perimeter: 2.63km	
	Scale: 0 25 50 100 150 200 250 Meters	
	Data Source Aerial Imagery: © Aerometrex Pty Ltd	
Disclaimers: Measurements are approximate only and may have been simplified or smaller lengths removed for readability. Parcels that make up a small percentage of the total site area have not been labelled for increased legibility.	Coordinate System: GDA 1994 MGA Zone 56	
	Date: 17 February 2023	

Contaminated Land

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

List of NSW contaminated sites notified to EPA

Records from the NSW EPA Contaminated Land list within the dataset buffer:

Map Id	Site	Address	Suburb	Activity	Management Class	Status	Location Confidence	Dist	Direction
N/A	No records in buffer								

The values within the EPA site management class in the table above, are given more detailed explanations in the table below:

EPA site management class	Explanation
Contamination being managed via the planning process (EP&A Act)	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. The contamination of this site is managed by the consent authority under the Environmental Planning and Assessment Act 1979 (EP&A Act) planning approval process, with EPA involvement as necessary to ensure significant contamination is adequately addressed. The consent authority is typically a local council or the Department of Planning and Environment.
Contamination currently regulated under CLM Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the Contaminated Land Management Act 1997 (CLM Act). Management of the contamination is regulated by the EPA under the CLM Act. Regulatory notices are available on the EPA's Contaminated Land Public Record of Notices.
Contamination currently regulated under POEO Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. Management of the contamination is regulated under the Protection of the Environment Operations Act 1997 (POEO Act). The EPA's regulatory actions under the POEO Act are available on the POEO public register.
Contamination formerly regulated under the CLM Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation under the Contaminated Land Management Act 1997 (CLM Act). The contamination was addressed under the CLM Act.
Contamination formerly regulated under the POEO Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed under the Protection of the Environment Operations Act 1997 (POEO Act).
Contamination was addressed via the planning process (EP&A Act)	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed by the appropriate consent authority via the planning process under the Environmental Planning and Assessment Act 1979 (EP&A Act).
Ongoing maintenance required to manage residual contamination (CLM Act)	The EPA has determined that ongoing maintenance, under the Contaminated Land Management Act 1997 (CLM Act), is required to manage the residual contamination. Regulatory notices under the CLM Act are available on the EPA's Contaminated Land Public Record of Notices.
Regulation being finalised	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the Contaminated Land Management Act 1997. A regulatory approach is being finalised.
Regulation under the CLM Act not required	The EPA has completed an assessment of the contamination and decided that regulation under the Contaminated Land Management Act 1997 is not required.
Under assessment	The contamination is being assessed by the EPA to determine whether regulation is required. The EPA may require further information to complete the assessment. For example, the completion of management actions regulated under the planning process or Protection of the Environment Operations Act 1997. Alternatively, the EPA may require information via a notice issued under s77 of the Contaminated Land Management Act 1997 or issue a Preliminary Investigation Order.

NSW EPA Contaminated Land List Data Source: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority

Contaminated Land

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

Contaminated Land: Records of Notice

Record of Notices within the dataset buffer:

Map Id	Name	Address	Suburb	Notices	Area No	Location Confidence	Distance	Direction
N/A	No records in buffer							

Contaminated Land Records of Notice Data Source: Environment Protection Authority

© State of New South Wales through the Environment Protection Authority

Terms of use and disclaimer for Contaminated Land: Record of Notices, please visit

<http://www.epa.nsw.gov.au/clm/clmdisclaimer.htm>

Former Gasworks

Former Gasworks within the dataset buffer:

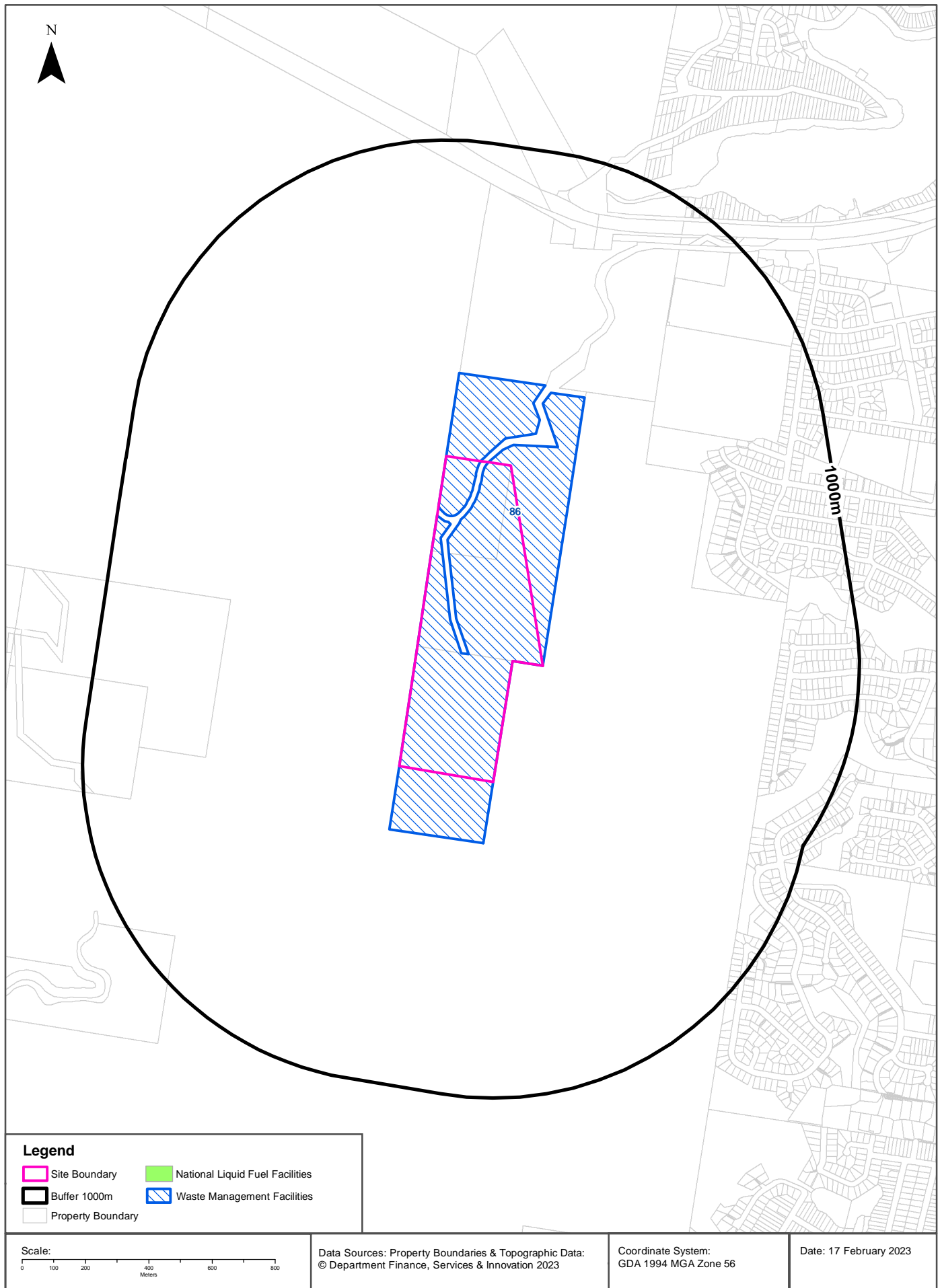
Map Id	Location	Council	Further Info	Location Confidence	Distance	Direction
N/A	No records in buffer					

Former Gasworks Data Source: Environment Protection Authority

© State of New South Wales through the Environment Protection Authority

Waste Management & Liquid Fuel Facilities

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256



Waste Management & Liquid Fuel Facilities

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

National Waste Management Site Database

Sites on the National Waste Management Site Database within the dataset buffer:

Site Id	Owner	Name	Address	Suburb	Class	Landfill	Reprocess	Transfer	Comments	Loc Conf	Dist	Direction
86	Gosford City Council	Woy Woy Landfill	Nagari Road	Woy Woy	Landfill	Operational			Original information on waste management site collected by WMAA in 2008 via survey	Premise Match	0m	On-site

Waste Management Facilities Data Source: Geoscience Australia

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National Liquid Fuel Facilities

National Liquid Fuel Facilities within the dataset buffer:

Map Id	Owner	Name	Address	Suburb	Class	Operational Status	Operator	Revision Date	Loc Conf	Dist	Direction
N/A	No records in buffer										

National Liquid Fuel Facilities Data Source: Geoscience Australia

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PFAS Investigation & Management Programs

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

EPA PFAS Investigation Program

Sites that are part of the EPA PFAS investigation program, within the dataset buffer:

Map ID	Site	Address	Loc Conf	Dist	Dir
N/A	No records in buffer				

EPA PFAS Investigation Program: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority

Defence PFAS Investigation Program

Sites being investigated by the Department of Defence for PFAS contamination within the dataset buffer:

Map ID	Base Name	Address	Loc Conf	Dist	Dir
N/A	No records in buffer				

Defence PFAS Investigation Program Data Custodian: Department of Defence, Australian Government

Defence PFAS Management Program

Sites being managed by the Department of Defence for PFAS contamination within the dataset buffer:

Map ID	Base Name	Address	Loc Conf	Dist	Dir
N/A	No records in buffer				

Defence PFAS Management Program Data Custodian: Department of Defence, Australian Government

Airservices Australia National PFAS Management Program

Sites being investigated or managed by Airservices Australia for PFAS contamination within the dataset buffer:

Map ID	Site Name	Impacts	Loc Conf	Dist	Dir
N/A	No records in buffer				

Airservices Australia National PFAS Management Program Data Custodian: Airservices Australia

Defence Sites

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

Defence 3 Year Regional Contamination Investigation Program

Sites which have been assessed as part of the Defence 3 Year Regional Contamination Investigation Program within the dataset buffer:

Property ID	Base Name	Address	Known Contamination	Loc Conf	Dist	Dir
N/A	No records in buffer					

Defence 3 Year Regional Contamination Investigation Program, Data Custodian: Department of Defence, Australian Government

EPA Other Sites with Contamination Issues

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

EPA Other Sites with Contamination Issues

This dataset contains other sites identified on the EPA website as having contamination issues. This dataset currently includes:

- James Hardie asbestos manufacturing and waste disposal sites
- Radiological investigation sites in Hunter's Hill
- Pasminco Lead Abatement Strategy Area

Sites within the dataset buffer:

Site Id	Site Name	Site Address	Dataset	Comments	Location Confidence	Distance	Direction
N/A	No records in buffer						

EPA Other Sites with Contamination Issues: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority



EPA Activities

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

Licensed Activities under the POEO Act 1997

Licensed activities under the Protection of the Environment Operations Act 1997, within the dataset buffer:

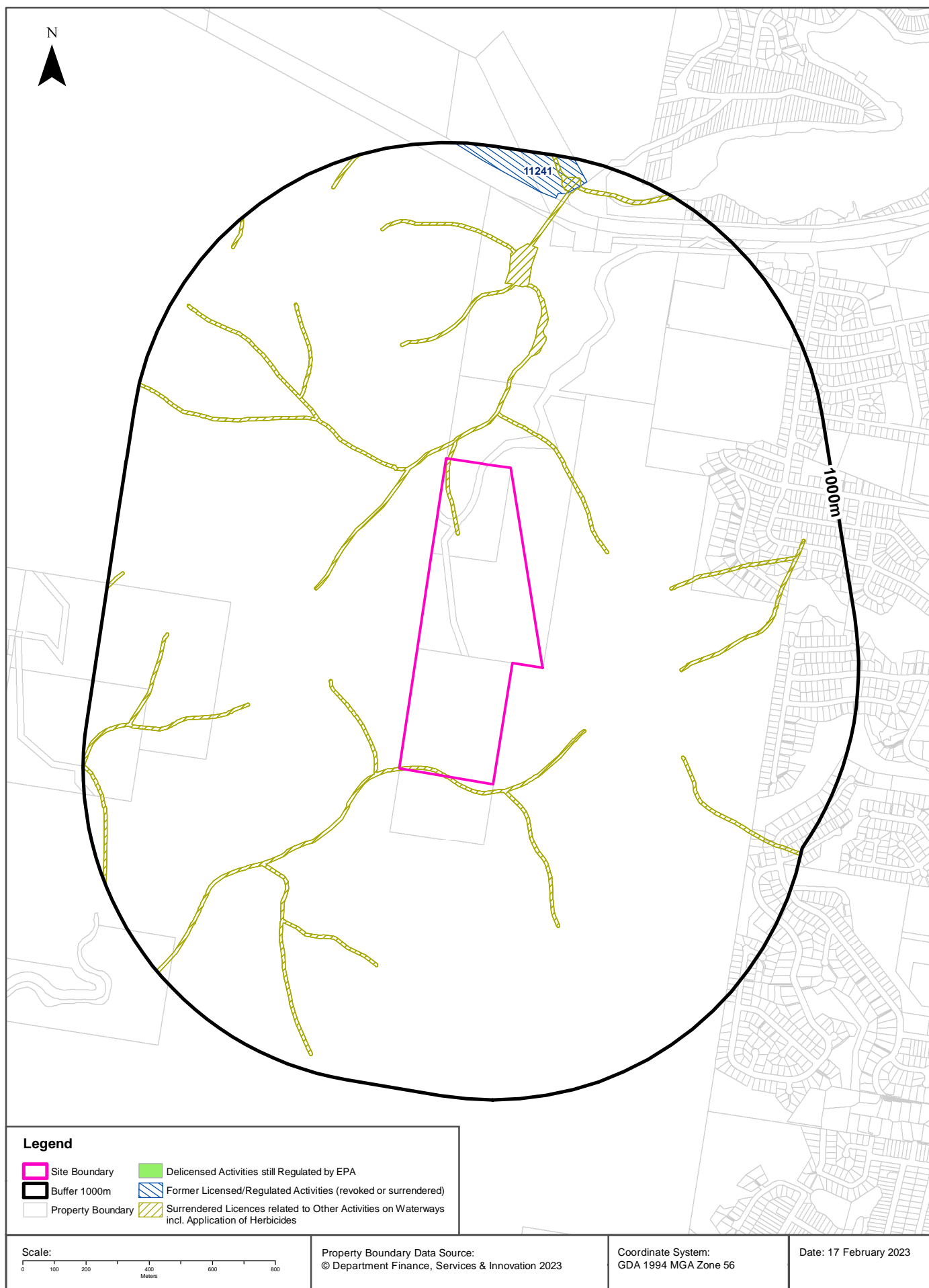
EPL	Organisation	Name	Address	Suburb	Activity	Loc Conf	Distance	Direction
6053	Central Coast Council	WOY WOY LANDFILL	NAGARI ROAD	WOY WOY	Waste disposal by application to land	Premise Match	0m	On-site
7643	Central Coast Council	THE WATERS WITHIN THE CENTRAL COAST LOCAL GOVERNMENT AREA	MULTIPLE WATERWAYS, CENTRAL COAST MC, NSW 2252	GOSFORD	Other activities	Network of Features	0m	On-site
1802	Central Coast Council	KINCUMBER SEWAGE TREATMENT SYSTEM	DOYLE STREET	KINCUMBER	Sewage treatment processing by large plants	Premise Match	266m	North
12208	SYDNEY TRAINS		SYDNEY TRAINS, HAYMARKET, NSW 1238		Railway systems activities	Network of Features	810m	North

POEO Licence Data Source: Environment Protection Authority

© State of New South Wales through the Environment Protection Authority

Delicensed & Former Licensed EPA Activities

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256



EPA Activities

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

Delicensed Activities still regulated by the EPA

Delicensed activities still regulated by the EPA, within the dataset buffer:

Licence No	Organisation	Name	Address	Suburb	Activity	Loc Conf	Distance	Direction
N/A	No records in buffer							

Delicensed Activities Data Source: Environment Protection Authority

© State of New South Wales through the Environment Protection Authority

Former Licensed Activities under the POEO Act 1997, now revoked or surrendered

Former Licensed activities under the Protection of the Environment Operations Act 1997, now revoked or surrendered, within the dataset buffer:

Licence No	Organisation	Location	Status	Issued Date	Activity	Loc Conf	Distance	Direction
4653	LUHRMANN ENVIRONMENT MANAGEMENT PTY LTD	WATERWAYS THROUGHOUT NSW	Surrendered	06/09/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	0m	On-site
4838	Robert Orchard	Various Waterways throughout New South Wales - SYDNEY NSW 2000	Surrendered	07/09/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	0m	On-site
6630	SYDNEY WEED & PEST MANAGEMENT PTY LTD	WATERWAYS THROUGHOUT NSW - PROSPECT, NSW, 2148	Surrendered	09/11/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	0m	On-site
11241	FREDERICK NICHOLS	251 WOY WOY ROAD, WOY WOY, NSW 2256	Surrendered	29/11/2000	Slaughtering or processing animals	Premise Match	867m	North

Former Licensed Activities Data Source: Environment Protection Authority

© State of New South Wales through the Environment Protection Authority

Historical Business Directories

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

Business Directory Records 1950-1982 Premise or Road Intersection Matches

Universal Business Directory records from years 1982, 1970, 1961 & 1950, mapped to a premise or road intersection within the dataset buffer:

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
N/A	No records in buffer						

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Business Directory Records 1950-1982

Road or Area Matches

Universal Business Directory records from years 1982, 1970, 1961 & 1950, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
N/A	No records in buffer					

Reproduced with permission of UBD and Hardie Grant Media Pty Ltd DD 01/08/2018

Historical Business Directories

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

Dry Cleaners, Motor Garages & Service Stations Premise or Road Intersection Matches

Dry Cleaners, Motor Garages & Service Stations from UBD Business Directories, mapped to a premise or road intersection, within the dataset buffer.

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
N/A	No records in buffer						

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Dry Cleaners, Motor Garages & Service Stations Road or Area Matches

Dry Cleaners, Motor Garages & Service Stations from UBD Business Directories, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published.

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
N/A	No records in buffer					

Reproduced with permission of UBD and Hardie Grant Media Pty Ltd DD 01/08/2018

Aerial Imagery 2022

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256



Scale: 0 70 140 210 280 Meters	Data Source Aerial Imagery: © Aerometrex Pty Ltd	Coordinate System: GDA 1994 MGA Zone 56	Date: 17 February 2023
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Aerial Imagery 2019

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256



Aerial Imagery 2016

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256





Aerial Imagery 2010

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256



Legend

 Site Boundary

 Buffer 150m

Scale: 0 70 140 210 280 Meters	Data Source Aerial Imagery: © Aerometrex Pty Ltd	Coordinate System: GDA 1994 MGA Zone 56	Date: 17 February 2023
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Aerial Imagery 2007

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256



Scale: 0 70 140 210 280 Meters	Data Source Aerial Imagery: © Aerometrex Pty Ltd	Coordinate System: GDA 1994 MGA Zone 56	Date: 17 February 2023
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Aerial Imagery 2003

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256



<p>Scale:</p> <p>0 70 140 210 280</p> <p>Meters</p>	<p>Data Source Aerial Imagery: © 2023 Google Inc, used with permission. Google and the Google logo are registered trademarks of Google Inc.</p>	<p>Coordinate System: GDA 1994 MGA Zone 56</p>	<p>Date: 16 February 2023</p>
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Aerial Imagery 1994

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256



Aerial Imagery 1991

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256



Legend

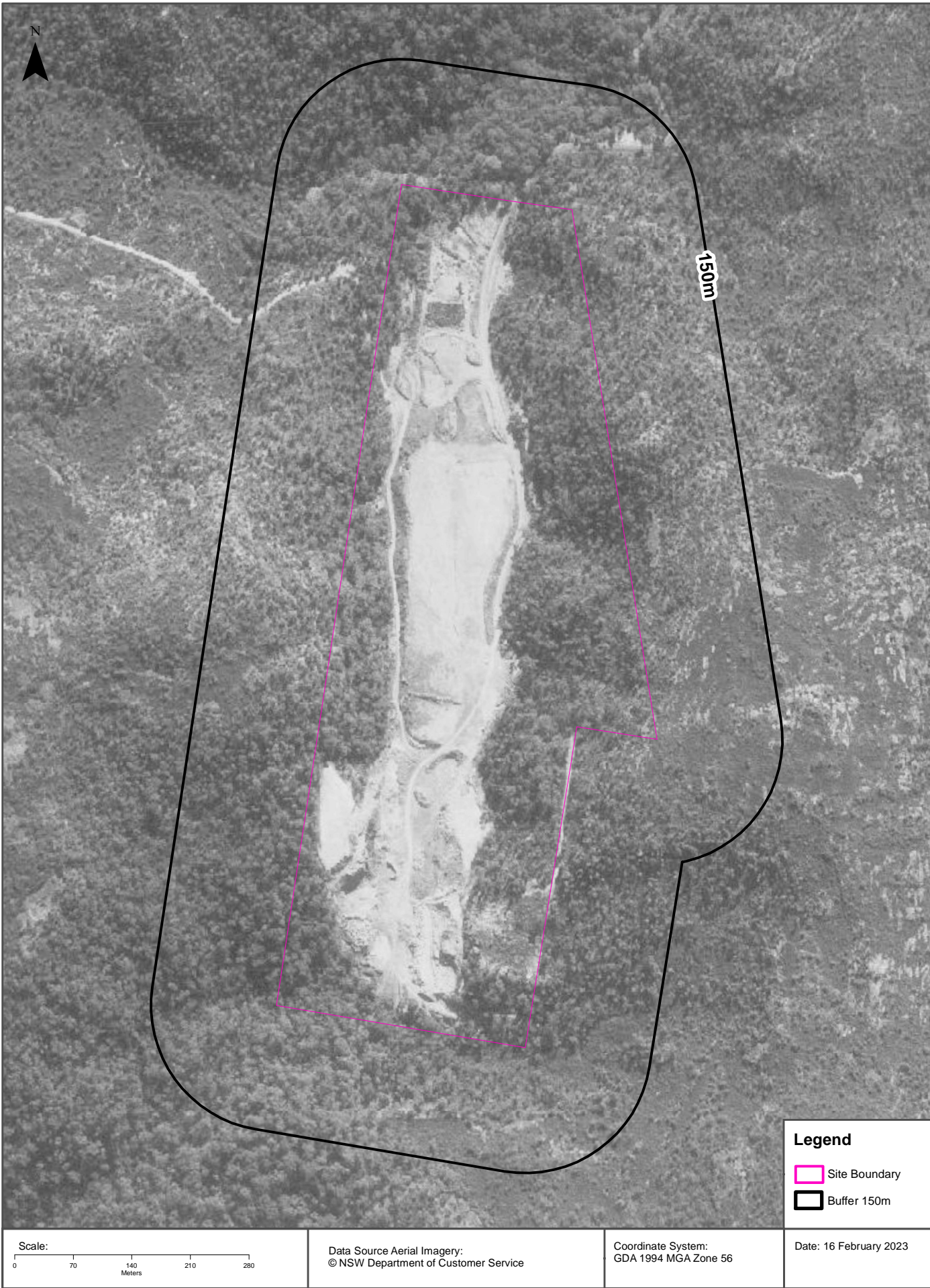
Site Boundary

Buffer 150m

Scale: 0 70 140 210 280 Meters	Data Sources: Aerial Imagery: © NSW Department of Customer Service	Coordinate System: GDA 1994 MGA Zone 56	Date: 17 February 2023
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Aerial Imagery 1985

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256



Scale:				
0	70	140	210	280
		Meters		

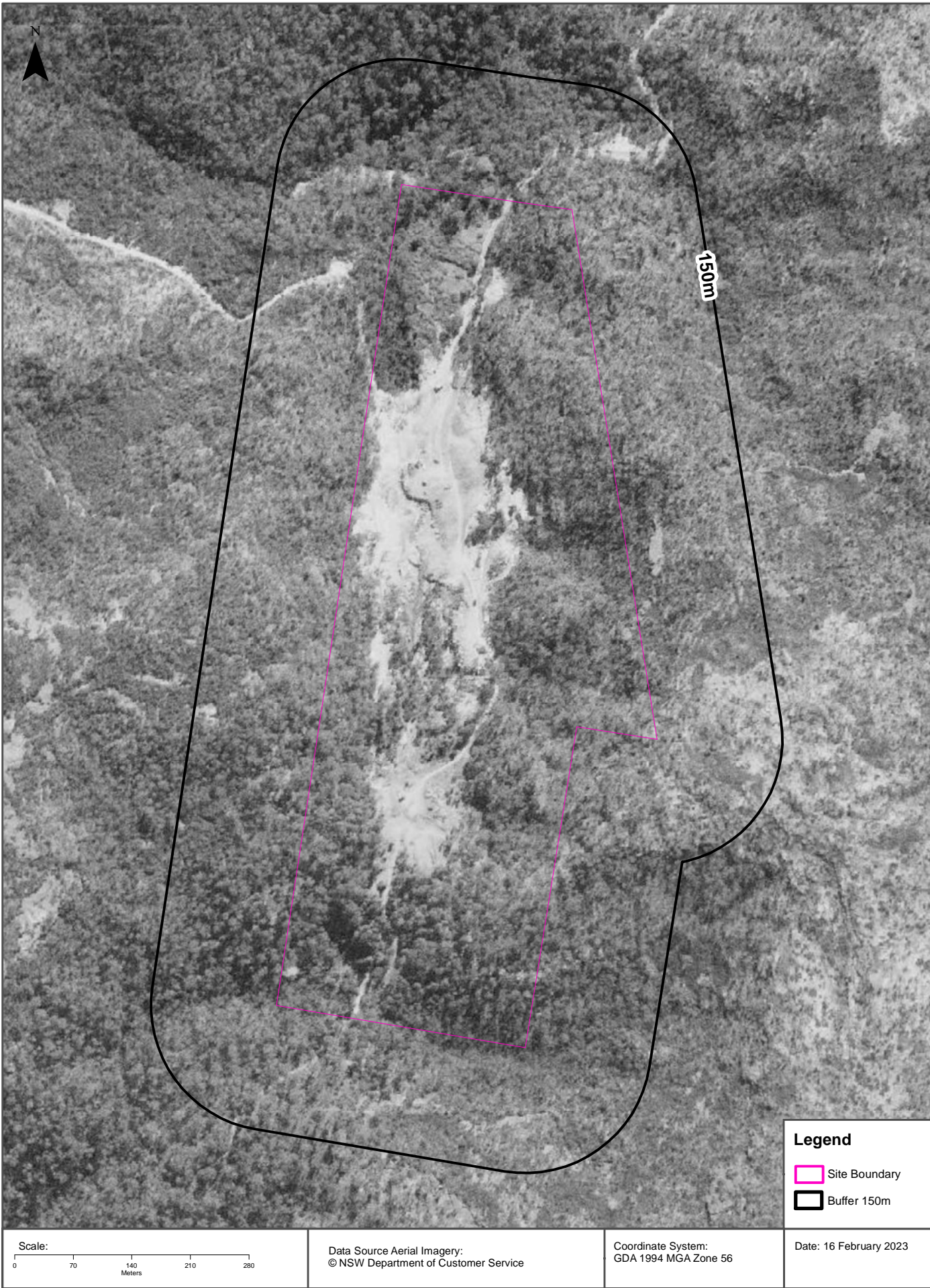
Data Source Aerial Imagery: © NSW Department of Customer Service

Coordinate System: GDA 1994 MGA Zone 56
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Date: 16 February 2023

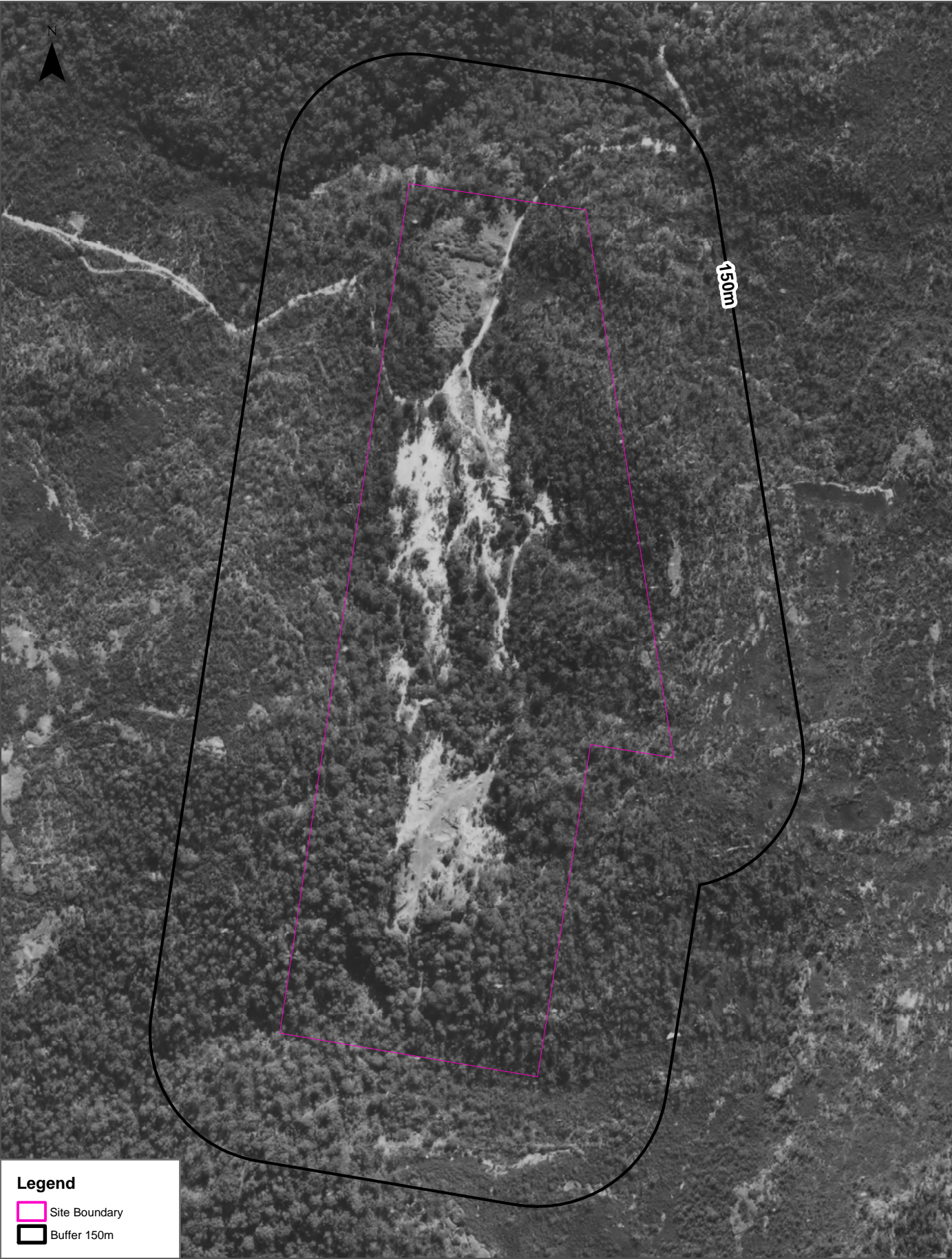
Aerial Imagery 1975

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256



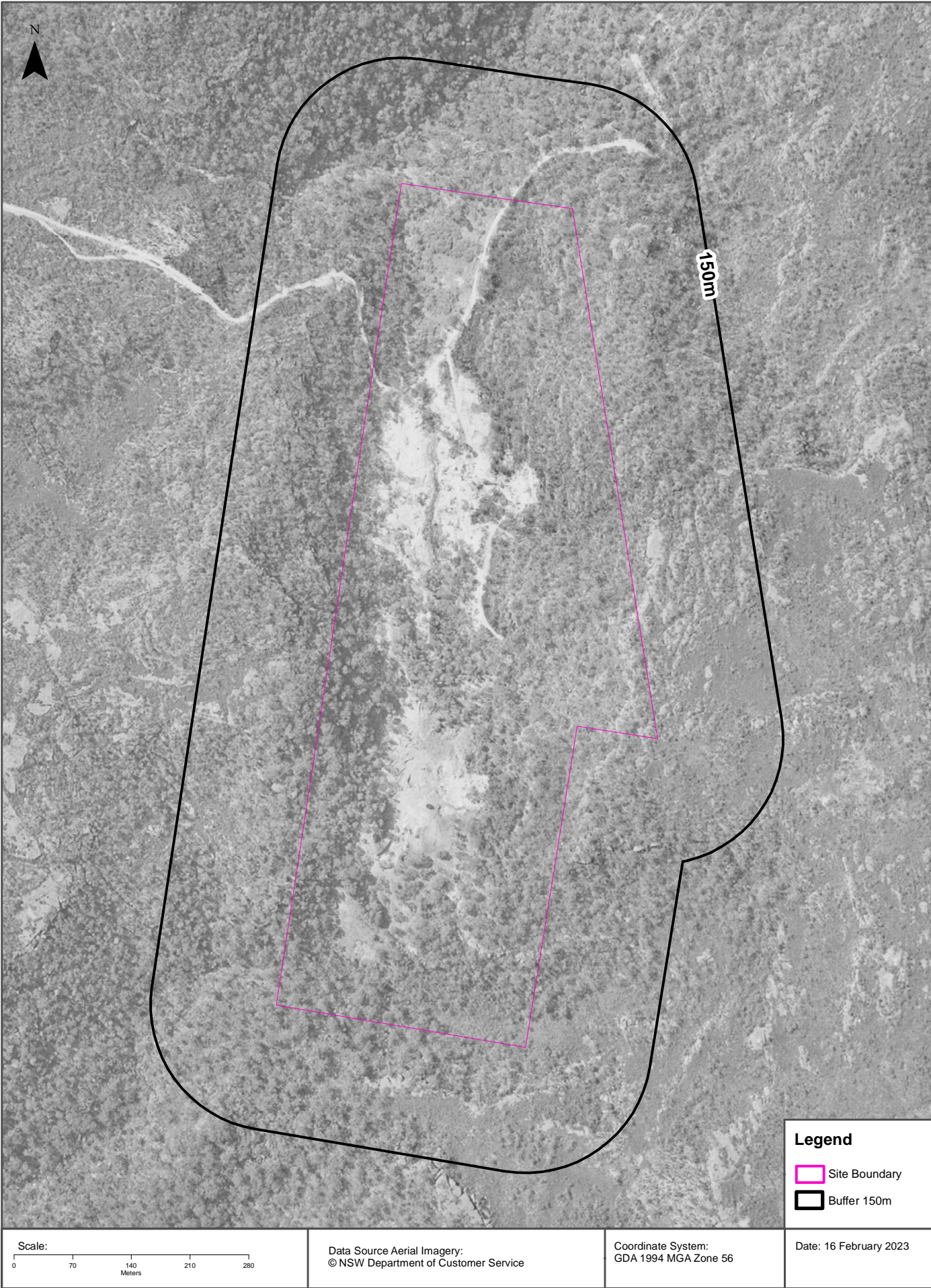
Aerial Imagery 1970

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256



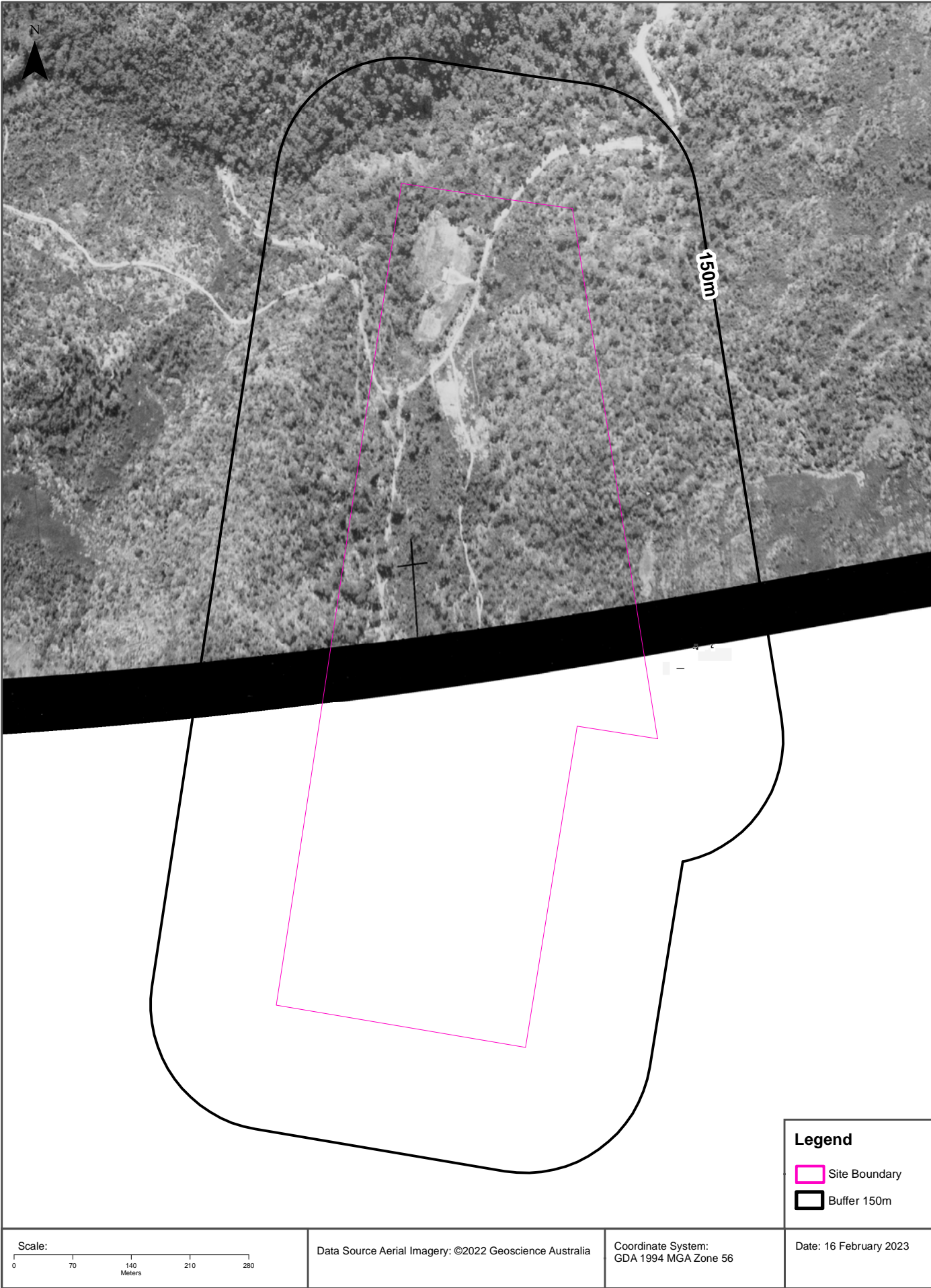
Aerial Imagery 1965

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256



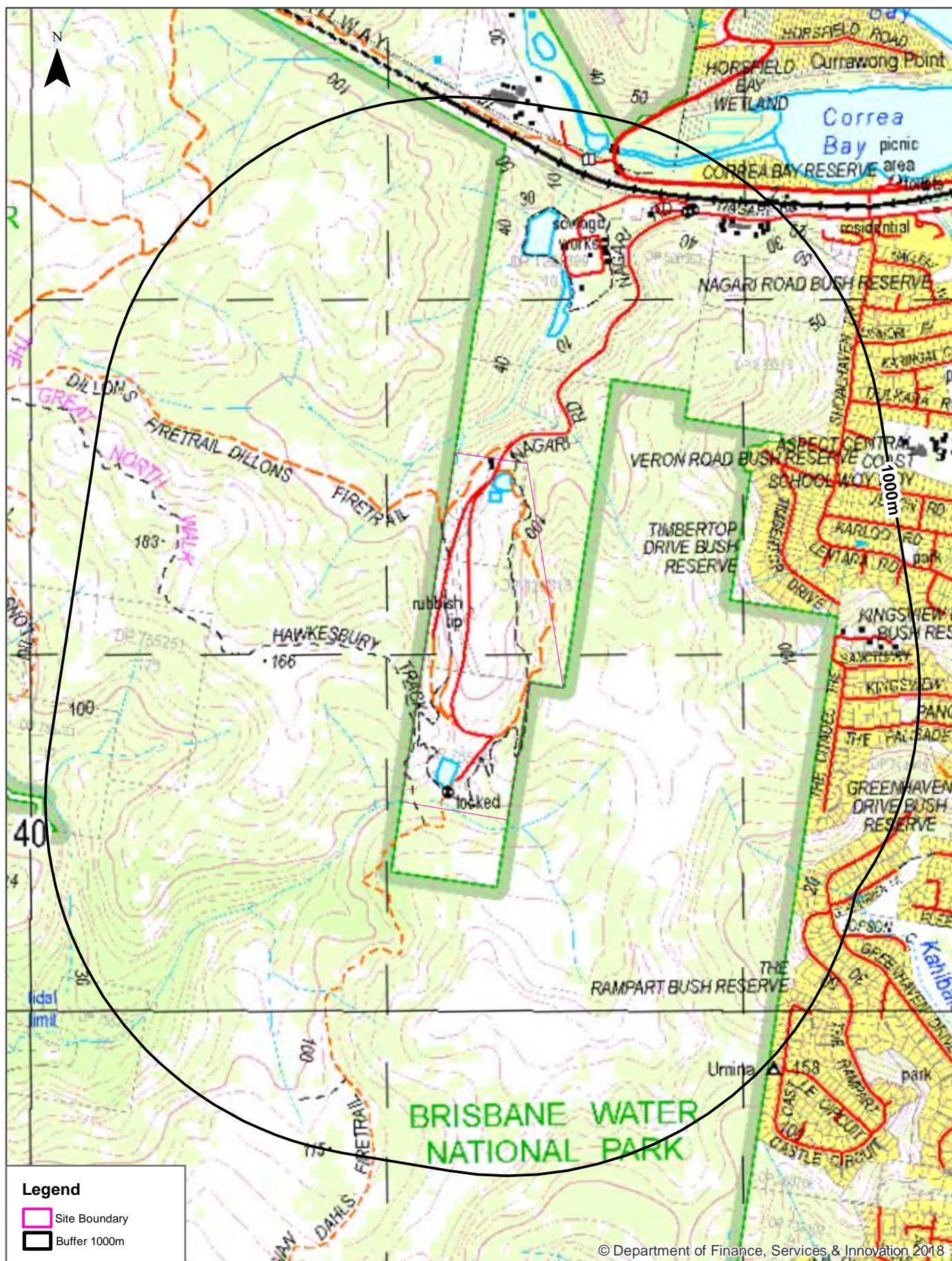
Aerial Imagery 1941

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256



Topographic Map 2015

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256



Historical Map 1975

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256



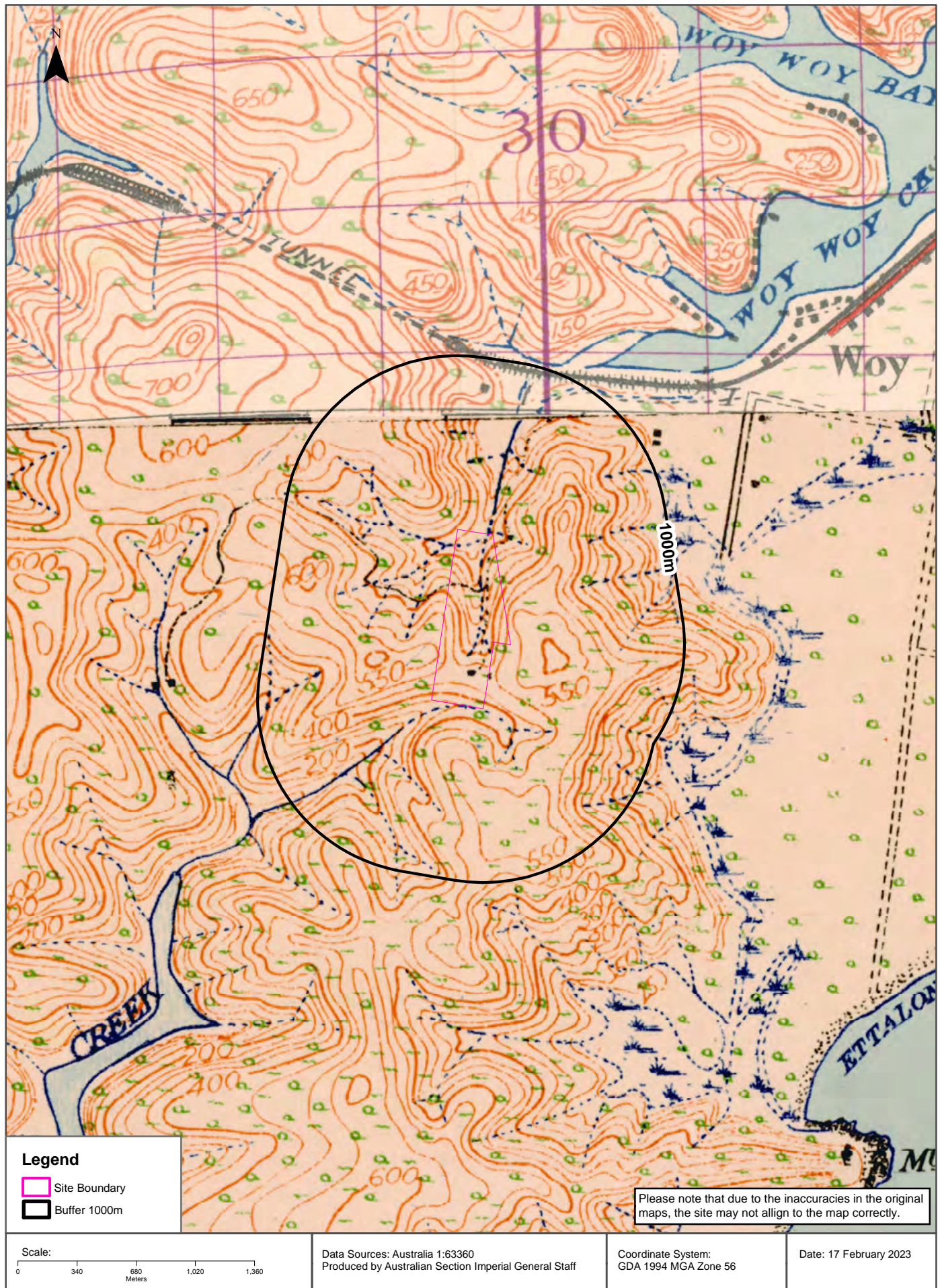
Historical Map c.1942

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256



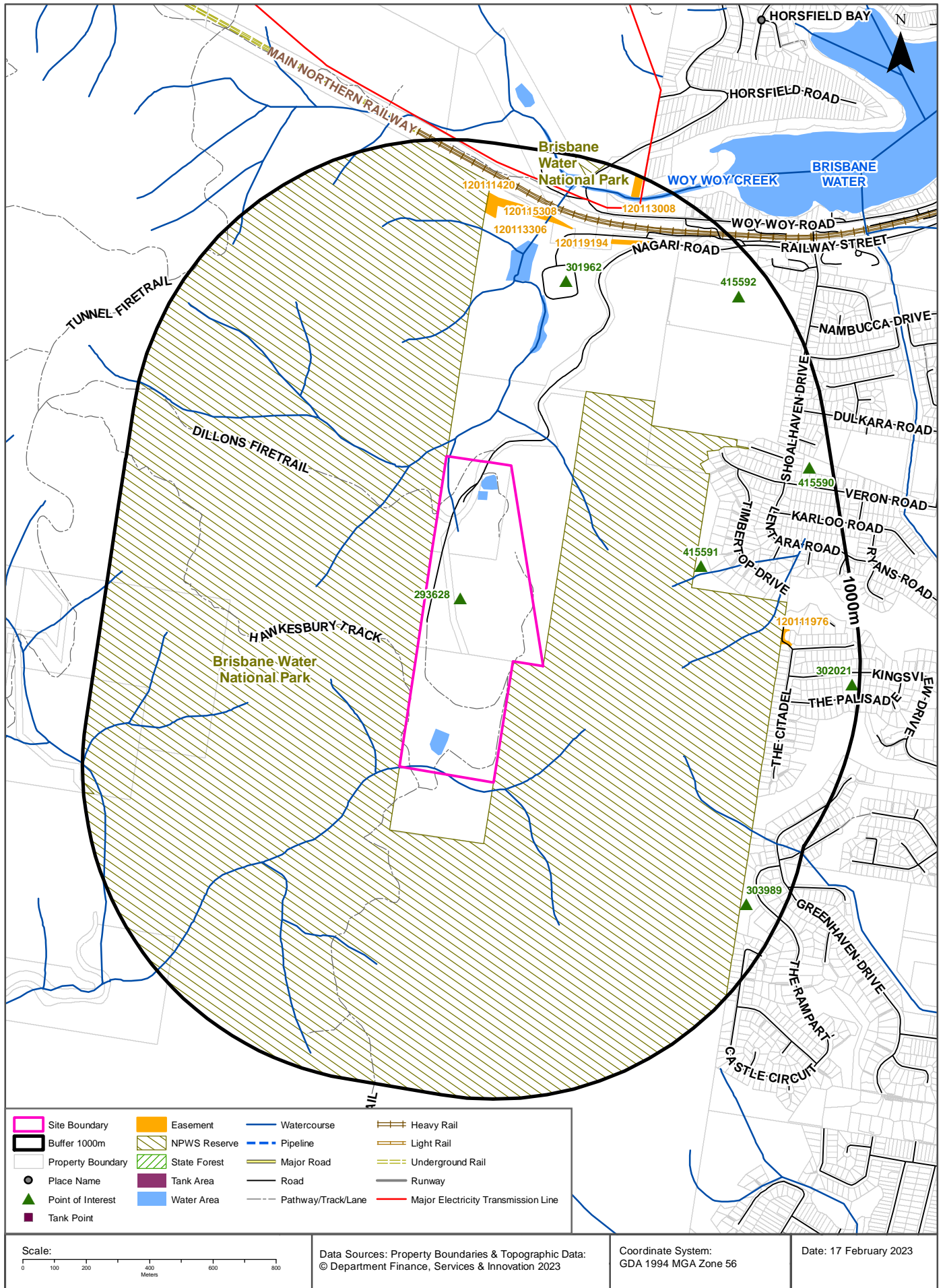
Historical Map 1920 - 1921

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256



Topographic Features

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256



Topographic Features

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

Points of Interest

What Points of Interest exist within the dataset buffer?

Map Id	Feature Type	Label	Distance	Direction
293628	Rubbish Depot	Rubbish Depot	0m	On-site
415591	Park	TIMBERTOP DRIVE BUSH RESERVE	541m	East
301962	Sewage Works	WOY WOY SEWERAGE TREATMENT PLANT	608m	North
303989	Park	THE RAMPART BUSH RESERVE	886m	South East
415592	Park	NAGARI ROAD BUSH RESERVE	895m	North East
415590	Park	VERON ROAD BUSH RESERVE	927m	North East
302021	Park	PANORAMA PARK	976m	East

Topographic Data Source: © Land and Property Information (2015)

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Topographic Features

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

Tanks (Areas)

What are the Tank Areas located within the dataset buffer?

Note. The large majority of tank features provided by LPI are derived from aerial imagery & are therefore primarily above ground tanks.

Map Id	Tank Type	Status	Name	Feature Currency	Distance	Direction
N/A	No records in buffer					

Tanks (Points)

What are the Tank Points located within the dataset buffer?

Note. The large majority of tank features provided by LPI are derived from aerial imagery & are therefore primarily above ground tanks.

Map Id	Tank Type	Status	Name	Feature Currency	Distance	Direction
N/A	No records in buffer					

Tanks Data Source: © Land and Property Information (2015)

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Major Easements

What Major Easements exist within the dataset buffer?

Note. Easements provided by LPI are not at the detail of local governments. They are limited to major easements such as Right of Carriageway, Electrical Lines (66kVa etc.), Easement to drain water & Significant subterranean pipelines (gas, water etc.).

Map Id	Easement Class	Easement Type	Easement Width	Distance	Direction
120111976	Primary	Undefined		753m	East
120111420	Primary	Undefined		769m	North
120119194	Primary	Undefined		771m	North
120115308	Primary	Undefined		773m	North
120113306	Primary	Undefined		780m	North
120113008	Primary	Undefined		921m	North

Easements Data Source: © Land and Property Information (2015)

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Topographic Features

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

State Forest

What State Forest exist within the dataset buffer?

State Forest Number	State Forest Name	Distance	Direction
N/A	No records in buffer		

State Forest Data Source: © NSW Department of Finance, Services & Innovation (2018)
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National Parks and Wildlife Service Reserves

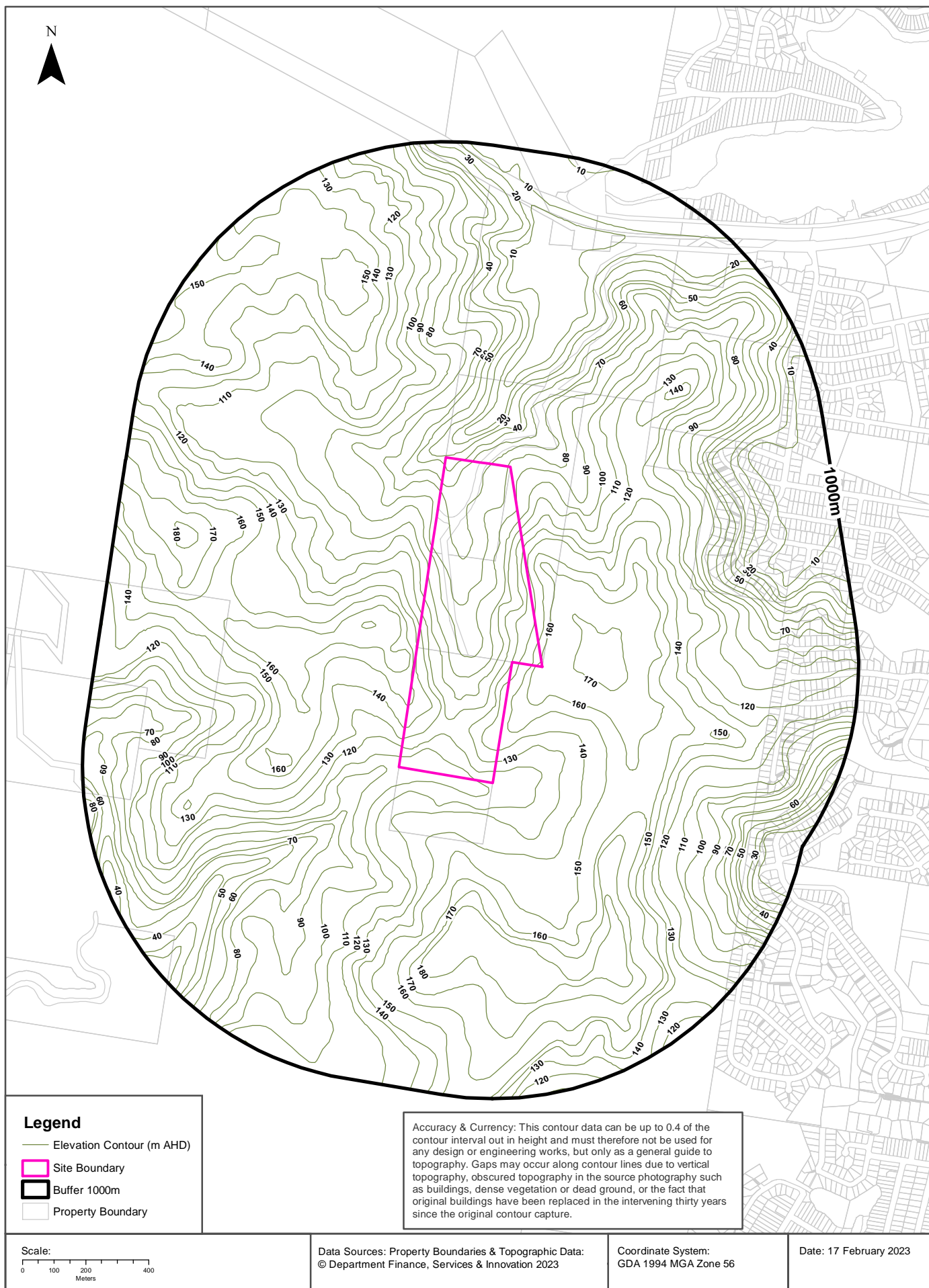
What NPWS Reserves exist within the dataset buffer?

Reserve Number	Reserve Type	Reserve Name	Gazetted Date	Distance	Direction
N0006	NATIONAL PARK	Brisbane Water National Park	01/10/1967	0m	South West

NPWS Data Source: © NSW Department of Finance, Services & Innovation (2018)
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Elevation Contours (m AHD)

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256



Hydrogeology & Groundwater

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

Hydrogeology

Description of aquifers within the dataset buffer:

Description	Distance	Direction
Porous, extensive aquifers of low to moderate productivity	0m	On-site

Hydrogeology Map of Australia : Commonwealth of Australia (Geoscience Australia)
Creative Commons 3.0 © Commonwealth of Australia <http://creativecommons.org/licenses/by/3.0/au/deed.en>

Temporary Water Restriction (Botany Sands Groundwater Source) Order 2018

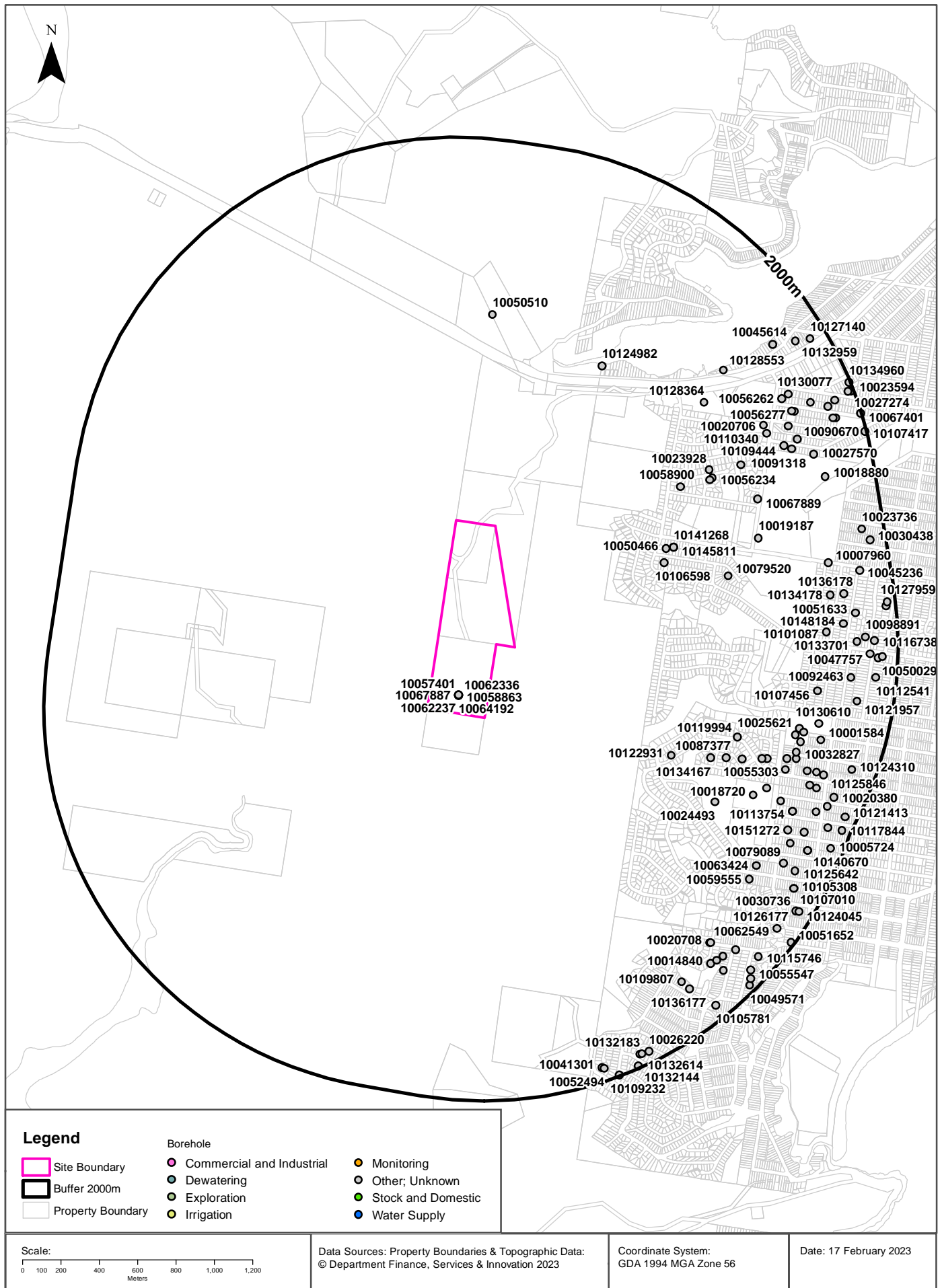
Temporary water restrictions relating to the Botany Sands aquifer within the dataset buffer:

Prohibition Area No.	Prohibition	Distance	Direction
N/A	No records in buffer		

Temporary Water Restriction (Botany Sands Groundwater Source) Order 2018 Data Source : NSW Department of Primary Industries

Groundwater Boreholes

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256



Hydrogeology & Groundwater

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

Groundwater Boreholes

Boreholes within the dataset buffer:

NGIS Bore ID	NSW Bore ID	Bore Type	Status	Drill Date	Bore Depth (m)	Reference Elevation	Height Datum	Salinity (mg/L)	Yield (L/s)	SWL (mbgl)	Distance	Direction
10057401	GW102124		Functional	13/08/1997	10.00		AHD			3.90	0m	On-site
10058863	GW102118		Unknown	25/11/1998	9.40		AHD				0m	On-site
10062237	GW102120		Unknown	23/11/1998	9.78		AHD				0m	On-site
10062336	GW102119		Unknown	24/11/1998	9.55		AHD				0m	On-site
10062869	GW102117		Unknown	25/11/1998	15.00		AHD				0m	On-site
10064192	GW102123		Functional	13/08/1997	9.90		AHD			2.50	0m	On-site
10067887	GW102114		Unknown	26/11/1998	15.00		AHD				0m	On-site
10106598	GW203940		Functioning	11/11/2015	9.50		AHD			0.00	841m	East
10050466	GW073485		Unknown	01/01/1987	5.79		AHD				864m	East
10141268	GW204955		Functioning	10/11/2016	5.00		AHD				903m	East
10145811	GW204955		Functioning	10/11/2016	5.00		AHD				903m	East
10058900	GW200428		Unknown	02/10/2004	6.00		AHD		0.500		988m	North East
10122931	GW201239		Functioning	01/12/2007	6.00		AHD	165	0.400	1.50	995m	South East
10124982	GW101142		Unknown	01/01/1980	5.00		AHD			2.00	1004m	North East
10050510	GW031124		Unknown	01/10/1968	23.70		AHD	Good			1089m	North
10121341	GW202043		Functioning	05/10/2006	6.50		AHD	128	0.500	2.75	1145m	North East
10023928	GW100930		Unknown	01/01/1990	4.00		AHD		0.238		1156m	North East
10079520	GW080574		Unknown	01/01/1982	7.00		AHD		3.000		1159m	East
10056234	GW080562		Unknown	01/01/2002	3.50		AHD				1161m	North East
10134167	GW201252		Functioning	15/03/2008	7.80		AHD	170	0.400	2.70	1176m	South East
10087377	GW104170		Unknown	01/01/1986	5.49		AHD				1245m	South East
10119994	GW202042		Functioning	08/11/2007	6.50		AHD	228	0.500	4.55	1254m	South East
10128364	GW201147		Functioning	28/06/2006	5.70		AHD			2.20	1265m	North East
10024493	GW201675		Functional	25/01/2005	23.10		AHD		3.500	3.00	1282m	South East
10114530	GW203789		Functioning	09/04/2015	3.70		AHD				1319m	North East
10124981	GW101139		Unknown	01/01/1990	5.00		AHD				1324m	South East
10019187	GW101956		Functioning	16/03/1999			AHD		6.670	4.00	1347m	East
10067889	GW102373		Functioning	01/09/1998	5.00		AHD	760		1.83	1375m	North East
10096080	GW078402		Unknown		4.00		AHD				1417m	South East
10055303	GW078238		Unknown		4.00		AHD				1440m	South East

NGIS Bore ID	NSW Bore ID	Bore Type	Status	Drill Date	Bore Depth (m)	Reference Elevation	Height Datum	Salinity (mg/L)	Yield (L/s)	SWL (mbgl)	Distance	Direction
10128553	GW100646		Unknown	01/01/1965	3.65		AHD				1441m	North East
10018720	GW201670		Functional	20/01/2005	21.50		AHD		5.000		1459m	South East
10020706	GW201158		Functioning	22/05/2007	5.50		AHD			2.10	1495m	North East
10110340	GW203890		Unknown	18/04/2018	4.20		AHD			2.40	1497m	North East
10029507	GW201674		Functioning	08/02/2005	20.00		AHD		6.500	3.00	1508m	South East
10126327	GW101015		Unknown	01/01/1982	3.35		AHD				1535m	South East
10025621	GW111595		Functioning	01/01/2004	4.00		AHD				1536m	East
10131287	GW201135		Functioning	01/07/2004	4.00		AHD				1546m	East
10061650	GW073497		Unknown	01/01/1980	3.60		AHD				1553m	South East
10109444	GW203881		Functioning	18/10/2016	4.20		AHD			2.50	1564m	North East
10095140	GW102383		Unknown	01/09/1998	5.00		AHD	470		1.31	1570m	East
10096528	GW201080		Functioning	01/01/2004	4.00		AHD				1573m	East
10133439	GW201134		Functioning	01/07/2004	4.00		AHD				1574m	East
10032827	GW105135		Functioning	01/01/1995	4.57		AHD			3.00	1582m	South East
10107456	GW203873		Functioning	12/10/2017	4.20		AHD			0.00	1597m	East
10091318	GW100854		Unknown	01/01/1977	4.57		AHD				1598m	North East
10119351	GW202920		Functioning	29/01/2013	4.50		AHD		1.000	2.60	1605m	South East
10063424	GW100958		Unknown	01/01/1995	4.00		AHD				1614m	South East
10056277	GW105146		Functioning	01/01/1969	3.66		AHD		0.303	0.31	1615m	North East
10059555	GW080563		Unknown	26/02/2004			AHD				1620m	South East
10101087	GW100717		Unknown	11/09/1997			AHD				1629m	East
10056262	GW073510		Unknown	01/01/1995	4.20		AHD		0.367	3.65	1636m	North East
10130610	GW203044		Functioning	01/07/2005	4.50		AHD			4.00	1636m	East
10091865	GW101741		Unknown	01/01/1993			AHD				1638m	North East
10127661	GW073441		Unknown	05/09/1995	4.60		AHD				1657m	South East
10129893	GW101809		Unknown	01/01/1980	6.10		AHD		30.000	2.44	1658m	North East
10020708	GW202307		Functioning	06/03/2012	9.00		AHD	fresh	0.400	2.80	1662m	South East
10062549	GW024395		Unknown		7.60		AHD	Poor			1665m	South East
10134178	GW202907		Functioning	15/09/2012	3.80		AHD		1.000	1.80	1670m	East
10001584	GW052342		Unknown	01/08/1980	4.00		AHD	Hard			1671m	East
10055811	GW101733		Unknown	01/01/1970	7.16		AHD		0.300	2.44	1672m	North East
10130077	GW107254		Unknown	29/06/2006	4.50		AHD				1676m	North East
10113754	GW203904		Functioning	24/10/2017	4.60		AHD			2.80	1680m	South East
10114237	GW203904		Functioning	24/10/2017	4.60		AHD			2.80	1680m	South East
10007960	GW023739		Unknown	01/12/1965	4.80		AHD	Good			1685m	East

NGIS Bore ID	NSW Bore ID	Bore Type	Status	Drill Date	Bore Depth (m)	Reference Elevation	Height Datum	Salinity (mg/L)	Yield (L/s)	SWL (mbgl)	Distance	Direction
10151272	GW203265		Functioning	09/12/2013	4.80		AHD			3.00	1687m	South East
10098173	GW100848		Unknown	01/01/1991	2.50		AHD		0.189		1701m	South East
10027570	GW080541		Unknown	01/01/1982	4.00		AHD				1703m	North East
10059634	GW073498		Unknown	01/01/1992	4.50		AHD				1707m	South East
10148184	GW203245		Functioning	20/12/2013	4.00		AHD			1.80	1720m	East
10109807	GW203772		Functioning	05/11/2014	8.20		AHD				1722m	South East
10112675	GW201235		Functioning	28/02/2008	6.00		AHD	120	0.400	2.40	1726m	South East
10045614	GW073494		Unknown	01/01/1980	4.00		AHD				1731m	North East
10079089	GW080569		Unknown	01/01/1970	4.00		AHD				1735m	South East
10098224	GW073407		Unknown	01/01/1980	3.40		AHD				1739m	South East
10136178	GW202032		Functioning	20/06/2004	6.50		AHD			3.50	1740m	East
10018880	GW101957		Functioning	16/03/1999	12.00		AHD		6.670	4.00	1742m	East
10014840	GW073463		Unknown	18/11/1980	6.70		AHD				1743m	South East
10125846	GW101013		Unknown	01/01/1979	4.88		AHD		0.370	3.66	1745m	South East
10088629	GW101738		Unknown	01/01/1985	5.49		AHD				1752m	South East
10072772	GW107685		Unknown	18/12/2006			AHD				1760m	South East
10092463	GW100859		Unknown	01/01/1985	2.80		AHD				1764m	East
10099027	GW201598		Functioning	21/11/2006	6.50		AHD	128	0.500	2.55	1766m	North East
10062709	GW100946		Unknown	31/12/1972			AHD				1771m	South East
10136177	GW201637		Functioning	01/07/1980	6.00		AHD		0.500	1.50	1775m	South East
10055354	GW101724		Unknown	19/02/1999			AHD		22.700	3.00	1785m	South East
10051633	GW073484		Unknown	01/01/1977	3.66		AHD				1786m	East
10133701	GW201257		Functioning	02/04/2008	6.00		AHD	130	0.400	2.70	1787m	East
10120203	GW200852		Functioning	30/10/2009	5.50		AHD		1.000	3.50	1795m	South East
10125642	GW101786		Unknown	01/01/1974	4.27		AHD				1807m	South East
10121957	GW106476		Unknown	20/09/2005			AHD				1809m	East
10099163	GW073524		Unknown	01/01/1993	7.00		AHD				1815m	South East
10140670	GW204951		Functioning	20/09/2017	5.10		AHD				1822m	South East
10141102	GW204951		Functioning	20/09/2017	5.10		AHD				1822m	South East
10098891	GW073528		Unknown	01/01/1975	3.20		AHD				1830m	East
10128659	GW073450		Unknown	01/01/1983	4.30		AHD				1832m	South East
10045236	GW201686		Functioning	02/03/2005	18.00		AHD		7.500		1840m	East
10020380	GW073455		Unknown	15/09/1995	6.00		AHD				1841m	South East
10132959	GW201268		Functioning	20/08/2008	6.00		AHD	120	0.400	2.50	1841m	North East
10093764	GW100456		Unknown	08/09/1994	4.57		AHD				1845m	North East

NGIS Bore ID	NSW Bore ID	Bore Type	Status	Drill Date	Bore Depth (m)	Reference Elevation	Height Datum	Salinity (mg/L)	Yield (L/s)	SWL (mbgl)	Distance	Direction
10105308	GW203907		Functioning	27/10/2017	5.50		AHD			3.70	1845m	South East
10107010	GW203907		Functioning	27/10/2017	5.50		AHD			3.70	1845m	South East
10100973	GW101862		Unknown	01/01/1990			AHD				1850m	North East
10047757	GW201685		Functioning	08/03/2005	24.00		AHD		15.000	3.00	1856m	East
10090670	GW101861		Unknown	03/03/1999	3.66		AHD				1864m	North East
10124310	GW101001		Unknown	01/01/1980	3.05		AHD		0.290		1872m	East
10116738	GW100738		Functioning	17/09/1996	4.00		AHD				1877m	East
10128761	GW101027		Unknown	05/12/1997	4.57		AHD				1882m	South East
10126177	GW107107		Unknown	23/05/2006			AHD				1883m	South East
10023736	GW073479		Unknown	01/01/1977	3.05		AHD			1.80	1887m	East
10063502	GW100943		Unknown	31/12/1970	6.40		AHD			3.05	1889m	North East
10112541	GW101774		Unknown	01/01/1980	3.00		AHD				1891m	East
10050029	GW103251		Unknown	01/01/1981	4.00		AHD				1899m	East
10115746	GW202917		Functioning	12/12/2012	4.90		AHD		1.000	3.10	1899m	South East
10127140	GW107252		Unknown	29/06/2006	6.00		AHD				1911m	North East
10030736	GW073475		Unknown	01/01/1993	6.10		AHD				1914m	South East
10134084	GW200766		Unknown	01/01/2005			AHD				1914m	South East
10030438	GW100921		Unknown	01/01/1976	4.00		AHD			2.00	1919m	East
10099373	GW101749		Unknown	12/02/1999	3.66		AHD		17.400		1920m	East
10105781	GW203884		Functioning	08/11/2017	4.60		AHD			2.80	1926m	South East
10041301	GW202065		Functioning	19/08/2006	6.50		AHD	128	0.500	2.55	1927m	South
10124045	GW101776		Unknown	22/02/1999	1.83		AHD				1928m	South East
10005724	GW204186		Functioning	21/05/2018	5.40		AHD				1932m	South East
10052494	GW202067		Functioning	19/08/2006	6.50		AHD	128	0.500	2.55	1935m	South
10132183	GW201631		Functioning	08/11/2007	7.50		AHD	150	1.000	2.80	1936m	South
10132614	GW201255		Functioning	14/03/2008	10.00		AHD	170	0.400	2.30	1938m	South
10121413	GW201234		Functioning	20/12/2007	6.00		AHD	120	0.400	2.30	1939m	South East
10026220	GW202048		Functioning	02/02/2007	6.50		AHD	210	1.000	2.70	1942m	South East
10055547	GW073489		Unknown		5.00		AHD		0.455	4.00	1946m	South East
10121974	GW202908		Functioning	10/10/2012	4.70		AHD		1.000	1.70	1950m	East
10117844	GW202924		Functioning	22/02/2013	5.00		AHD		0.500	2.90	1957m	South East
10127959	GW100908		Unknown	01/01/1978	3.96		AHD				1958m	East
10049571	GW073496		Unknown	01/01/1950	4.50		AHD		0.366		1968m	South East
10027274	GW073473		Unknown	01/01/1980	4.40		AHD			3.40	1971m	North East
10051652	GW104517		Functioning	01/01/1979	5.49		AHD				1984m	South East

NGIS Bore ID	NSW Bore ID	Bore Type	Status	Drill Date	Bore Depth (m)	Reference Elevation	Height Datum	Salinity (mg/L)	Yield (L/s)	SWL (mbgl)	Distance	Direction
10023594	GW073472		Unknown	01/01/1967	4.40		AHD			3.40	1986m	North East
10132144	GW202909		Functioning	15/10/2012	8.00		AHD		2.000	3.50	1987m	South
10134960	GW201146		Functioning	09/11/2007	6.00		AHD			2.70	1991m	North East
10107417	GW203813		Functioning	07/07/2016	4.50		AHD				1992m	North East
10067401	GW202463		Functioning	01/11/2011	4.20		AHD		10.000	2.40	1994m	North East
10109232	GW203914		Functioning	27/12/2017	5.30		AHD			2.30	1994m	South

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Hydrogeology & Groundwater

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

Driller's Logs

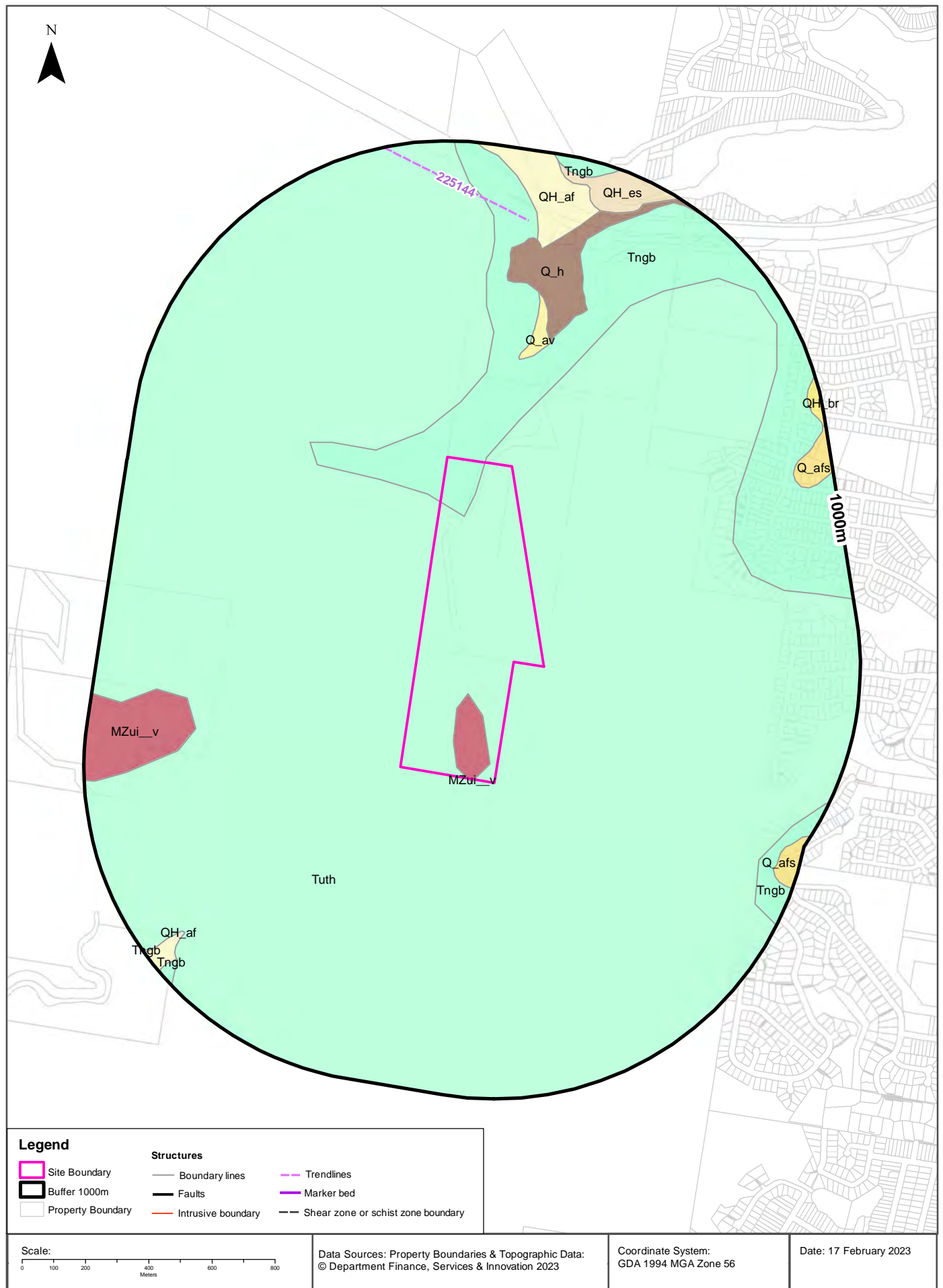
Drill log data relevant to the boreholes within the dataset buffer:

NGIS Bore ID	Drillers Log	Distance	Direction
10057401	0.00m-0.50m FILL,sandy clay 0.50m-10.00m SANDSTONE,brown, light grey	0m	On-site
10058863	0.00m-0.50m TOPSOIL, gravelly sand 0.50m-1.50m SANDSTONE,light grey, med strength, slt/dist weathered 1.50m-2.45m SANDSTONE, whitee high strength. slt weathered 2.45m-5.40m SANDSTONE,lt grey,low/med strength. weathered 5.40m-6.50m SHALE,dark grey, low strength. slightly weathered 6.50m-9.40m SANDSTONEgrey, high strength,slt.weathered	0m	On-site
10062237	0.00m-1.00m FILL,gravelly sand. moist 1.00m-2.00m FILL,ashy material. moist to wet 2.00m-2.80m CLAY,grey dry to moist 2.80m-3.30m CLAYEY SAND, white, moist 3.30m-8.00m SANDSTONE,lt grey variously weathered 8.00m-9.78m SANDSTONE, orange/red.med/high strength.slt weathered	0m	On-site
10062336	0.00m-0.70m SANDSTONE,lt grey,some yellow,ext.low strength.ext weathered 0.70m-3.00m SANDSTONE,grey, med strength,slt weathered 3.00m-4.40m SANDSTONE,dk.brown/orange slightly weathered 4.40m-9.55m SANDSTONE,yellow/orange.high strength.slt weathered	0m	On-site
10062869	0.00m-1.00m SANDSTONE,extremely weathered 1.00m-1.90m SANDSTONE,light grey, low strength. ext.weathered 1.90m-2.00m CLAY,dark grey 2.00m-3.45m SANDSTONE,light grey ,slightly/extremely weathered 3.45m-5.85m SHALE,black.soft to firm 5.85m-12.00m SANDSTONE, light grey,low to medium strength.slt/highly weathered 12.00m-15.00m SANDSTONE,grey med/high strength, slt weathered	0m	On-site
10064192	0.00m-1.25m SANDSTONE/SILTSTONE 1.25m-4.00m SANDSTONE,mainly lt grey, some red-brown and quartz particles 4.00m-9.90m SILTSTONE, light grey, brown iron stain 8.9/9.0m	0m	On-site
10067887	0.00m-0.70m SANDSTONE,GREY.EXTREMELY WEATHERED 0.70m-4.60m SANDSTONE GREY 4.60m-5.00m SANDSTONE,GREY, EXTREMELY WEATHERED 5.00m-8.20m SANDSTONE,LT.GREY.SLIGHTLY WEATHERED 8.20m-9.60m SANDSTONE AS ABOVE WITH GRAVEL 9.60m-11.20m SANDSTONE,LIGHT GREY, SLIGHTLY WEATHERED 11.20m-12.10m SHALE, LIGHT GREY 12.10m-14.00m SANDSTONE, LIGHT GREY,SLIGHTLY WEATHERED 14.00m-14.16m CORE LOSS 14.16m-14.20m SHALE, LIGHT GREY 14.20m-15.00m SANDSTONE, LIGHT GREY	0m	On-site
10058900	0.00m-6.00m sand	988m	North East
10122931	0.00m-1.50m Fill, rock/mud/clay 1.50m-3.00m Sand, & Clay 3.00m-6.00m Sand	995m	South East
10050510	0.00m-0.60m Soil 0.60m-7.62m Clay 7.62m-23.77m Sandstone Water Supply	1089m	North
10121341	0.00m-6.50m Sand	1145m	North East
10134167	0.00m-2.70m Fill, crushed rock & sandstone 2.70m-6.80m Sand	1176m	South East
10119994	0.00m-4.50m Fill; pink Sand & crushed Sandstone 4.50m-6.50m Sand, grey	1254m	South East
10128364	0.00m-0.50m Topsoil 0.50m-1.00m Sand, compact, light brown 1.00m-1.40m Sand/Coffee Rock, very hard, black 1.40m-2.20m Sand, ligh brown, marbled 2.20m-5.00m Sand, fine, river sand, light brown 5.00m-5.40m Sand, fine, river sand, white 5.40m-5.70m Sand,f ine, in Clay	1265m	North East

NGIS Bore ID	Drillers Log	Distance	Direction
10024493	0.00m-1.00m Sand, medium, grey silt 1.00m-2.00m Sand, light tan, light grey organic silt 2.00m-3.00m Sand, tan brown, organics 3.00m-6.00m Sand, tan, silty organics 6.00m-8.00m Sand, medium-coarse, pebbles, shells, grey 8.00m-11.00m Sand, fine-medium, grey silt 11.00m-17.00m Sand, grey, shells, black silt, charcoal (old wood) interbeds, black silty-clay lenses 17.00m-20.00m Sand & Silt, grey, interbedded layers, dark grey clay 20.00m-23.00m Sand, medium-coarse, grey shells, thin silt interbeds 23.00m-23.50m Silt, tan-grey 23.50m-24.00m Bedrock, decomposed	1282m	South East
10067889	0.00m-0.60m ROAD BASE, ORANGE BROWN 0.60m-1.50m SAND BROWN FINE MEDIUM 1.50m-2.80m SAND CHOCOLATE FINE MED. 2.80m-4.80m SAND YELLOW BROWN FINE MED. 4.80m-5.00m SAND GREY FINE MED. SHELLS,WOOD,PEAT	1375m	North East
10018720	0.00m-1.00m Sand, silty, grey, medium 1.00m-2.00m Sand, tan brown, organics 2.00m-5.00m Sand, light tan 5.00m-6.00m Sand, dark tan, organic, wet 6.00m-21.50m Sand, grey, fine-medium, some silt 21.50m-24.50m Sand, clay lenses, grey, silt	1459m	South East
10020706	0.00m-0.50m Fill, black Sand 0.50m-3.30m Sand, light brown, fine 3.30m-5.50m Sand, grey, shell particles	1495m	North East
10029507	0.00m-4.00m Sand, medium, tan, silty 4.00m-11.00m Sand, shell fragments, grey, medium 11.00m-12.00m Sand, grey, fine, grey silt 12.00m-17.00m Sand, fine, medium-light tan, light grey silt 17.00m-20.00m Sand, medium tan, grey silt 20.00m-21.00m Sand, medium tan, silt 21.00m-21.50m Sand, dark tan silt 21.50m-21.50m Ironstone, rusty, red clay	1508m	South East
10095140	0.00m-1.50m SAND CREAM FINE MED 1.50m-2.00m SAND YELLOW MED BROWN 2.00m-4.10m SAND YELLOW FINE MED 4.10m-5.00m SAND GREY FINE MED.ORGANICS,SHELLS	1570m	East
10119351	0.00m-0.80m Topsoil; grey sand 0.80m-4.20m Sand; orange 4.20m-4.80m Sand; grey	1605m	South East
10134178	0.00m-3.80m Sand	1670m	East
10001584	0.00m-4.00m Sand Water Supply	1671m	East
10007960	0.00m-4.87m Sand Water Supply	1685m	East
10151272	0.00m-1.20m Sand; grey 1.20m-2.60m Sand; light grey 2.60m-3.00m Sand; coffee 3.00m-4.80m Sand; light brown	1687m	South East
10148184	0.00m-0.40m Fill 0.40m-1.20m Sand 1.20m-2.40m Rock, coffee/Sand 2.40m-4.00m Sand; light brown	1720m	East
10112675	0.00m-6.00m Sand	1726m	South East
10136178	0.00m-6.50m Sand, white & grey	1740m	East
10099027	0.00m-6.50m Sand, grey & brown	1766m	North East
10133701	0.00m-6.00m Sand	1787m	East
10120203	0.00m-5.50m Sand	1795m	South East
10045236	0.00m-1.00m Sand, medium, tan, some organic soil 1.00m-2.00m Sand, medium, dark rusty tan, wet, smelly gas 2.00m-3.00m Sand, medium, tan 3.00m-6.00m Sand, dark tan 6.00m-8.00m Sand, light grey 8.00m-8.50m Sand, medium, dark grey, silt, shells 8.50m-10.00m Sand, medium-coarse, shell, light grey silt 10.00m-18.00m Sand, fine, white/light grey, clay 18.00m-23.00m Sand, fine, light grey, interbedded white clay, soft decomposed sandstone	1840m	East
10132959	0.00m-6.00m Sand	1841m	North East

NGIS Bore ID	Drillers Log	Distance	Direction
10047757	0.00m-1.00m Sand, grey, some topsoil 1.00m-6.50m Sand, medium-coarse, light tan 6.50m-8.00m Sand, medium-coarse, pebbles, shells, dark grey silt 8.00m-9.00m Sand, fine-coarse, grey, shells, grey silt 9.00m-23.00m Sand, fine-medium, shells, light grey 23.00m-24.50m Sand, yellowish dark tan 24.50m-25.50m Clayey Sand, medium, grey	1856m	East
10116738	0.00m-0.00m SAND	1877m	East
10115746	0.00m-4.90m Sand	1899m	South East
10041301	0.00m-2.60m Clay Fill, with small rocks 2.60m-3.30m Sand, black, charcoal 3.30m-6.50m Sand, grey/white with quartz fines	1927m	South
10052494	0.00m-2.60m Clay/Fill with small rocks 2.60m-3.30m Sand, black, with charcoal 3.30m-6.50m Sand, grey/white with quartz fines	1935m	South
10132183	0.00m-2.70m Fill, rock & clay compacted 2.70m-3.30m Peat/Clay mix 3.30m-4.80m Sand, grey, dirty 4.80m-7.50m Sand, light grey	1936m	South
10132614	0.00m-2.30m Fill, rock & timber 2.30m-6.00m Sand, black 6.00m-10.00m Sand, white	1938m	South
10121413	0.00m-6.00m Sand	1939m	South East
10026220	0.00m-2.70m Fill; rubble, sand & clay 2.70m-6.50m Sand, grey, fine	1942m	South East
10132144	0.00m-2.80m Fill 2.80m-8.00m Sand/River, yellow - Iron taste	1987m	South
10134960	0.00m-1.00m Sand, grey 1.00m-2.70m Rock, coffee rock 2.70m-4.50m Sand, light brown 4.50m-6.00m Sand, light brown to grey	1991m	North East

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Geology

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

Geological Units

What are the Geological Units within the dataset buffer?

Unit Code	Unit Name	Description	Unit Stratigraphy	Age	Dominant Lithology	Distance
Tuth	Hawkesbury Sandstone	Medium- to coarse-grained quartz sandstone with minor shale and laminite lenses.	/Ungrouped Triassic units//Hawkesbury Sandstone//	Anisian (base) to Anisian (top)	Sandstone	0m
MZui__v	Ungrouped Mesozoic igneous units - breccia	Volcanic breccia, varying amounts of sedimentary breccia, and basalt.	/Ungrouped Mesozoic igneous units//Ungrouped Mesozoic igneous units - breccia//	Jurassic (base) to Cretaceous (top)	Undifferentiated breccia	0m
Tngb	Burralow Formation	Fine-grained, micaceous, quartz- to quartz-lithic sandstone; interbedded with siltstone, grey shale and red-brown claystone.	/Narrabeen Group/Gosford Subgroup/Burralow Formation//	Early Triassic (base) to Middle Triassic (top)	Sandstone	0m
Q_av	Alluvial valley deposits	Silt, clay, (fluvially deposited) lithic to quartz-lithic sand, gravel.	/Alluvium//Alluvial valley deposits//	Quaternary (base) to Now (top)	Clastic sediment	339m
Q_h	Anthropogenic deposits	Anthropocene deposits varying from large man-made clasts (concrete blocks to building demolition rubble) to quarried natural boulders, with interstitial sand-sized to clay matrix.	/Anthropogenic deposits///	Quaternary (base) to Now (top)	Anthropogenic material	407m
QH_af	Alluvial floodplain deposits	Silt, very fine- to medium-grained lithic to quartz-rich sand, clay.	/Alluvium//Alluvial floodplain deposits//	Holocene (base) to Now (top)	Clastic sediment	693m
QH_es	Estuarine swamp	Organic-rich mud, peat, clay, silt, very fine- to fine-grained sand (marine-deposited), fine- to medium-grained sand (fluvially deposited).	/Estuarine deposits//Estuarine swamp//	Holocene (base) to Now (top)	Organic rich sediment	856m
Q_afs	Alluvial floodplain deposits - swamp facies	Unconsolidated grey to grey-brown silty clay, sporadic very fine-grained sand.	/Alluvium//Alluvial floodplain deposits//Alluvial floodplain deposits - swamp facies//	Quaternary (base) to Now (top)	Clay	874m
QH_br	Coastal deposits - beach ridge	Fine- to coarse-grained quartz-lithic-carbonate sand (marine-deposited), shell and shell-fragment-rich beds, polymictic gravel.	/Coastal deposits//Coastal deposits - beach ridge//	Holocene (base) to Now (top)	Sand	957m

Linear Geological Structures

What are the Dyke, Sill, Fracture, Lineament and Vein trendlines within the dataset buffer?

Map ID	Feature Description	Map Sheet Name	Distance
225144	Lineament, approximate, airphoto interpreted.	Gosford-Lake Macquarie 1:100,000 Geological Sheet	777m

What are the Faults, Shear zones or Schist zones, Intrusive boundaries & Marker beds within the dataset buffer?

Map ID	Boundary Type	Description	Map Sheet Name	Distance
No Features				

Geological Data Source: Statewide Seamless Geology v2.1, Department of Regional NSW

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Naturally Occurring Asbestos Potential

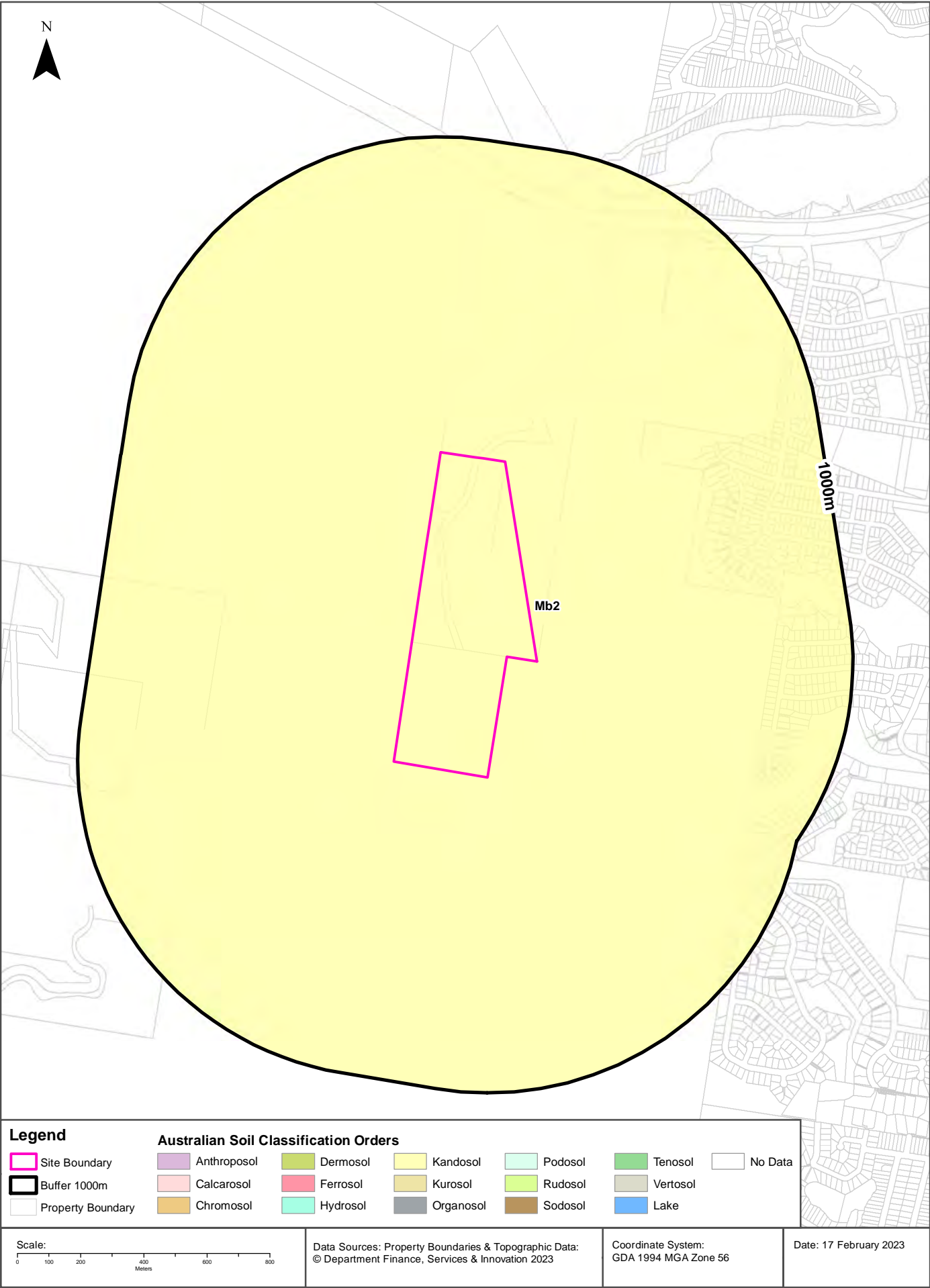
Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

Naturally Occurring Asbestos Potential

Naturally Occurring Asbestos Potential within the dataset buffer:

Potential	Sym	Strat Name	Group	Formation	Scale	Min Age	Max Age	Rock Type	Dom Lith	Description	Dist	Dir
No records in buffer												

Naturally Occurring Asbestos Potential Data Source: © State of New South Wales through NSW Department of Industry, Resources & Energy



Soils

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

Atlas of Australian Soils

Soil mapping units and Australian Soil Classification orders within the dataset buffer:

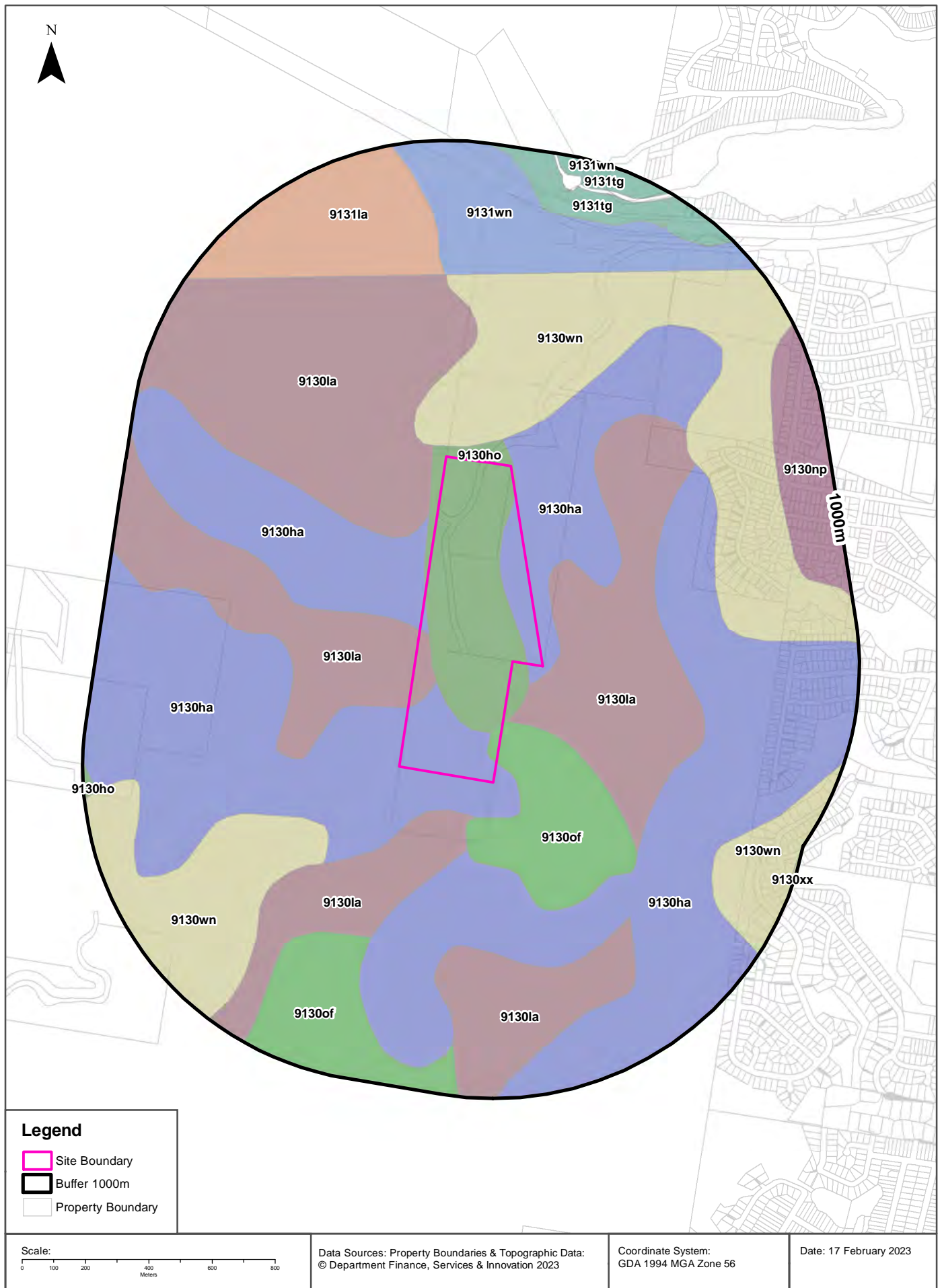
Map Unit Code	Soil Order	Map Unit Description	Distance	Direction
Mb2	Kandosol	Dissected sandstone plateau of moderate to strong relief with sandstone pillars, ledges, and slabs-- level to undulating ridges, irregularly benched slopes, steep ridges, cliffs, canyons, narrow sandy valleys: chief soils are (i) on areas of gentle to moderate relief, acid yellow leached earths (Gn2.74) and (Gn2.34) and acid leached yellow earths (Gn2.24)- sometimes these soils contain ironstone gravel; and (ii) on, or adjacent to, areas of strong relief, siliceous sands (Uc1.2), leached sands (Uc2.12) and (Uc2.2), and shallow forms of the above (Gn2) soils. Associated are: (i) on flat to gently undulating remnants of the original plateau surface, leached sands (Uc2.3), siliceous sands (Uc1.2), sandy earths (Uc5.22), and (Gn2) soils as for (i) above (these areas are in part comparable with unit Cb29); (ii) on flat ironstone gravelly remnants of the original plateau surface, (Gn2) soils as for unit Mb5(i); (iii) on gently undulating ridges where interbedded shales are exposed, shallow, often stony (Dy3.41), (Dr2.21), and related soils similar to unit Tb35; (iv) narrow valleys of (Uc2.3) soils flanked by moderate slopes of (Dy3.41) soils; (v) escarpments of steep hills with shallow (Dy) and (Dr) soils between sandstone pillars; and (vi) shallow (Um) soils, such as (Um6.21) on steep hills of basic rocks. As mapped, minor areas of units Mg20, Mm1, and Mw8 are included. Data are limited.	0m	On-site

Atlas of Australian Soils Data Source: CSIRO

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Soil Landscapes of Central and Eastern NSW

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256



Soils

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

Soil Landscapes of Central and Eastern NSW

Soil Landscapes of Central and Eastern NSW within the dataset buffer:

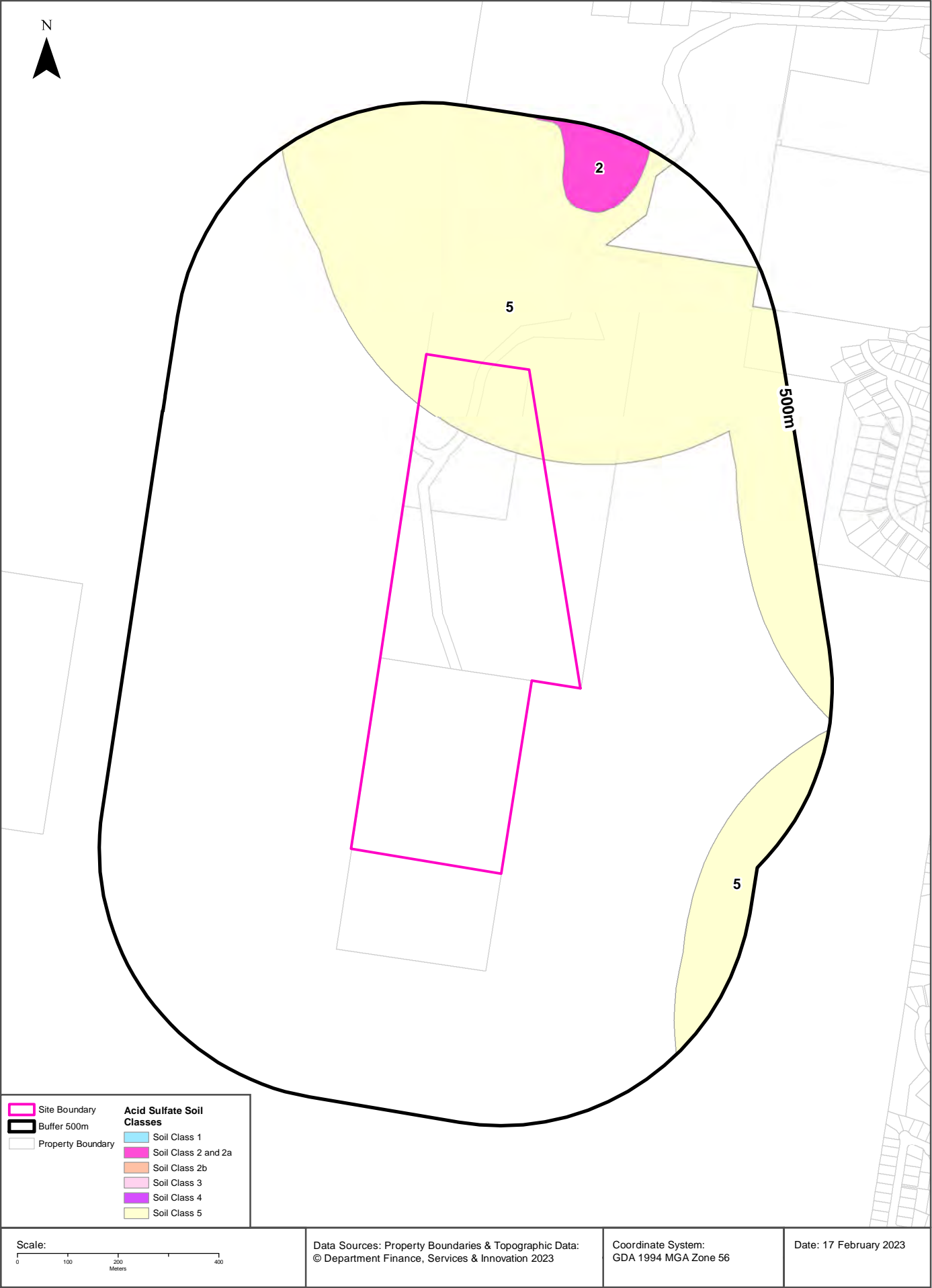
Soil Code	Name	Distance	Direction
9130ho	Hornsby	0m	On-site
9130ha	Hawkesbury	0m	On-site
9130la	Lambert	0m	On-site
9130of	Oxford Falls	0m	On-site
9130wn	Watagan	32m	North
9131wn	Watagan	576m	North
9131la	Lambert	576m	North
9131tg	Tuggerah	807m	North
9130np	Newport	825m	North East
9130xx	Disturbed Terrain	989m	South East

Soil Landscapes of Central and Eastern NSW: NSW Department of Planning, Industry and Environment

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Acid Sulfate Soils

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256



Acid Sulfate Soils

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

Environmental Planning Instrument - Acid Sulfate Soils

What is the on-site Acid Sulfate Soil Plan Class that presents the largest environmental risk?

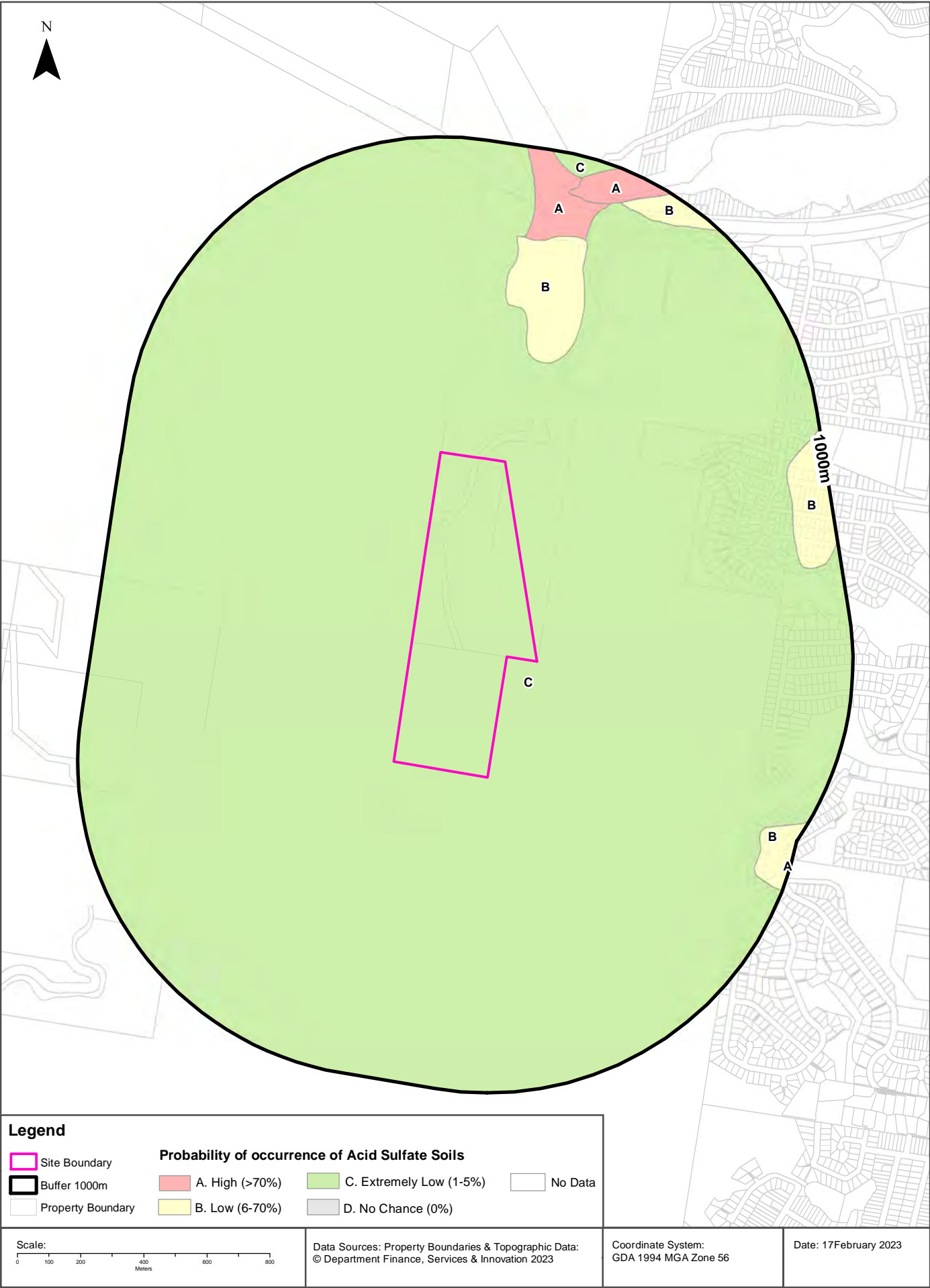
Soil Class	Description	EPI Name
5	Works within 500 metres of adjacent Class 1, 2, 3, or 4 land that is below 5 metres AHD and by which the watertable is likely to be lowered below 1 metre AHD on adjacent Class 1, 2, 3 or 4 land, present an environmental risk	Central Coast Local Environmental Plan 2022

If the on-site Soil Class is 5, what other soil classes exist within 500m?

Soil Class	Description	EPI Name	Distance	Direction
2	Works below natural ground surface present an environmental risk; Works by which the watertable is likely to be lowered present an environmental risk	Central Coast Local Environmental Plan 2022	334m	North

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Acid Sulfate Soils

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

Atlas of Australian Acid Sulfate Soils

Atlas of Australian Acid Sulfate Soil categories within the dataset buffer:

Class	Description	Distance	Direction
C	Extremely low probability of occurrence. 1-5% chance of occurrence with occurrences in small localised areas.	0m	On-site
B	Low Probability of occurrence. 6-70% chance of occurrence.	334m	North
A	High Probability of occurrence. >70% chance of occurrence.	987m	South East

Atlas of Australian Acid Sulfate Soils Data Source: CSIRO

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Dryland Salinity

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

Dryland Salinity - National Assessment

Is there Dryland Salinity - National Assessment data onsite?

No

Is there Dryland Salinity - National Assessment data within the dataset buffer?

No

What Dryland Salinity assessments are given?

Assessment 2000	Assessment 2020	Assessment 2050	Distance	Direction
N/A	N/A	N/A		

Dryland Salinity Data Source : National Land and Water Resources Audit

The Commonwealth and all suppliers of source data used to derive the maps of "Australia, Forecast Areas Containing Land of High Hazard or Risk of Dryland Salinity from 2000 to 2050" do not warrant the accuracy or completeness of information in this product. Any person using or relying upon such information does so on the basis that the Commonwealth and data suppliers shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

Any persons using this information do so at their own risk.

In many cases where a high risk is indicated, less than 100% of the area will have a high hazard or risk.

Mining

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

Mining Subsidence Districts

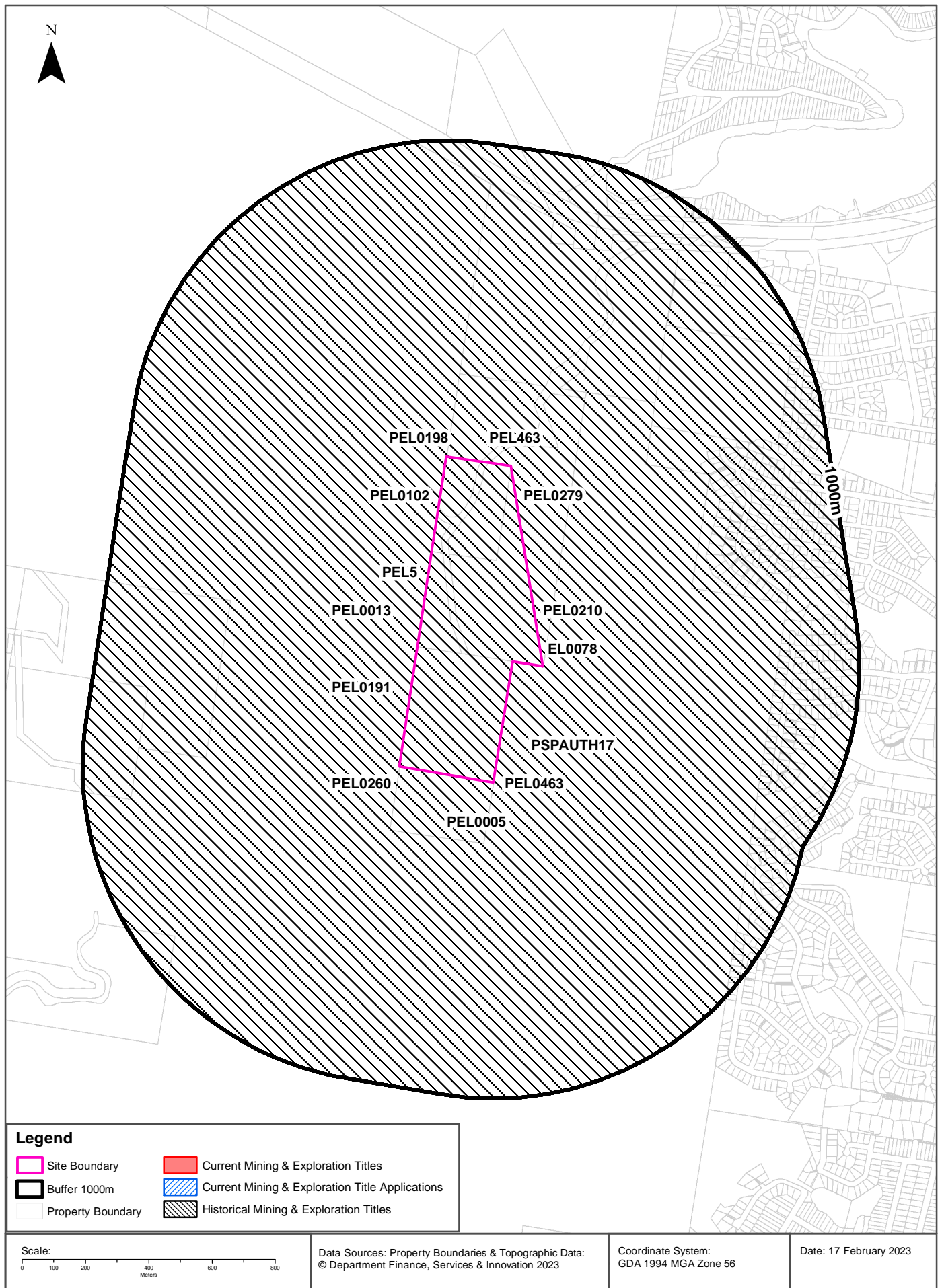
Mining Subsidence Districts within the dataset buffer:

District	Distance	Direction
There are no Mining Subsidence Districts within the report buffer		

Mining Subsidence District Data Source: © Land and Property Information (2016)
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Mining & Exploration Titles

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256



Mining

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

Current Mining & Exploration Titles

Current Mining & Exploration Titles within the dataset buffer:

Title Ref	Holder	Grant Date	Expiry Date	Last Renewed	Operation	Resource	Minerals	Dist	Dir
N/A	No records in buffer								

Current Mining & Exploration Titles Data Source: © State of New South Wales through NSW Department of Industry

Current Mining & Exploration Title Applications

Current Mining & Exploration Title Applications within the dataset buffer:

Application Ref	Applicant	Application Date	Operation	Resource	Minerals	Dist	Dir
N/A	No records in buffer						

Current Mining & Exploration Title Applications Data Source: © State of New South Wales through NSW Department of Industry

Mining

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

Historical Mining & Exploration Titles

Historical Mining & Exploration Titles within the dataset buffer:

Title Ref	Holder	Start Date	End Date	Resource	Minerals	Dist	Dir
EL0078	CONTINENTAL OIL CO OF AUSTRALIA LIMITED	19670201	19680201	MINERALS		0m	On-site
PSPAUTH17	MACQUARIE ENERGY PTY LTD	20070803	20080703	PETROLEUM	Petroleum	0m	On-site
PEL0463	DART ENERGY (APOLLO) PTY LTD	20091010	20150603	PETROLEUM	Petroleum	0m	On-site
PEL463	DART ENERGY (APOLLO) PTY LTD	20081022	20130227	MINERALS		0m	On-site
PEL0210	THE AUSTRALIAN GAS LIGHT COMPANY (AGL), NORTH BULLI COLLIERIES PTY LTD			PETROLEUM	Petroleum	0m	On-site
PEL0013	AUSTRALIAN OIL AND GAS CORPORATION LTD			PETROLEUM	Petroleum	0m	On-site
PEL0260	NORTH BULLI COLLIERIES PTY LTD, AGL PETROLEUM OPERATIONS PTY LTD, THE AUSTRALIAN GAS LIGHT CO.	19810909	19930803	PETROLEUM	Petroleum	0m	On-site
PEL0005	AGL UPSTREAM INVESTMENTS PTY LIMITED	19931111	20150403	PETROLEUM	Petroleum	0m	On-site
PEL0279	THE ELECTRICITY COMMISSION OF NSW (TRADING AS PACIFIC POWER)	19910504	19931111	PETROLEUM	Petroleum	0m	On-site
PEL0102	AUSTRALIAN OIL AND GAS CORPORATION LTD			PETROLEUM	Petroleum	0m	On-site
PEL0198	JOHN STREVS (TERRIGAL) NL			PETROLEUM	Petroleum	0m	On-site
PEL0191	NORTHWEST OIL AND MINERALS CO NL			PETROLEUM	Petroleum	0m	On-site
PEL5	AGL UPSTREAM INVESTMENTS PTY LIMITED	19931111	20011210	MINERALS		0m	On-site

Historical Mining & Exploration Titles Data Source: © State of New South Wales through NSW Department of Industry

State Environmental Planning Policy

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

State Significant Precincts

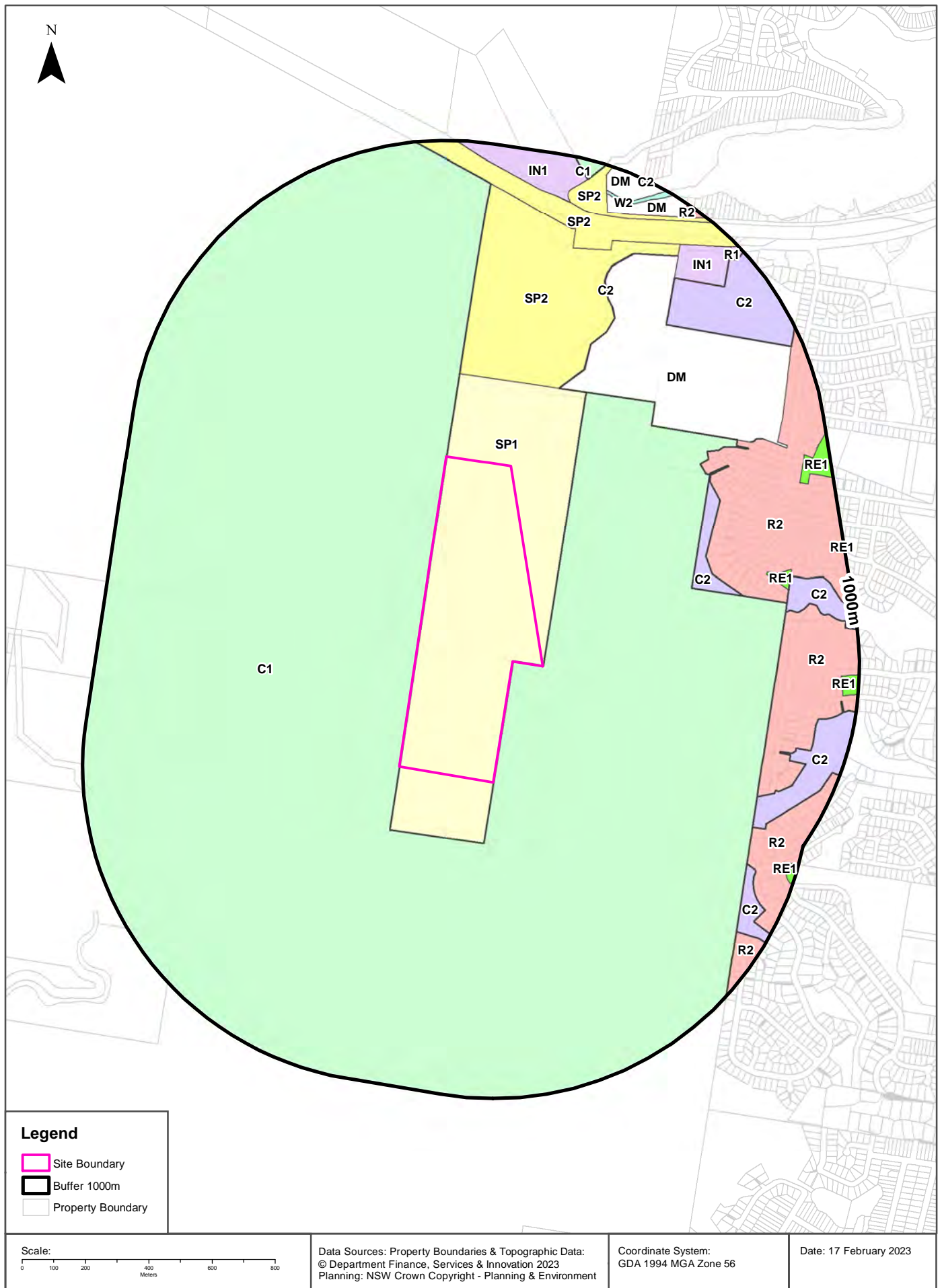
What SEPP State Significant Precincts exist within the dataset buffer?

Map Id	Precinct	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
N/A	No records in buffer							

State Environment Planning Policy Data Source: NSW Crown Copyright - Planning & Environment
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EPI Planning Zones

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256



Environmental Planning Instrument

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

Land Zoning

What EPI Land Zones exist within the dataset buffer?

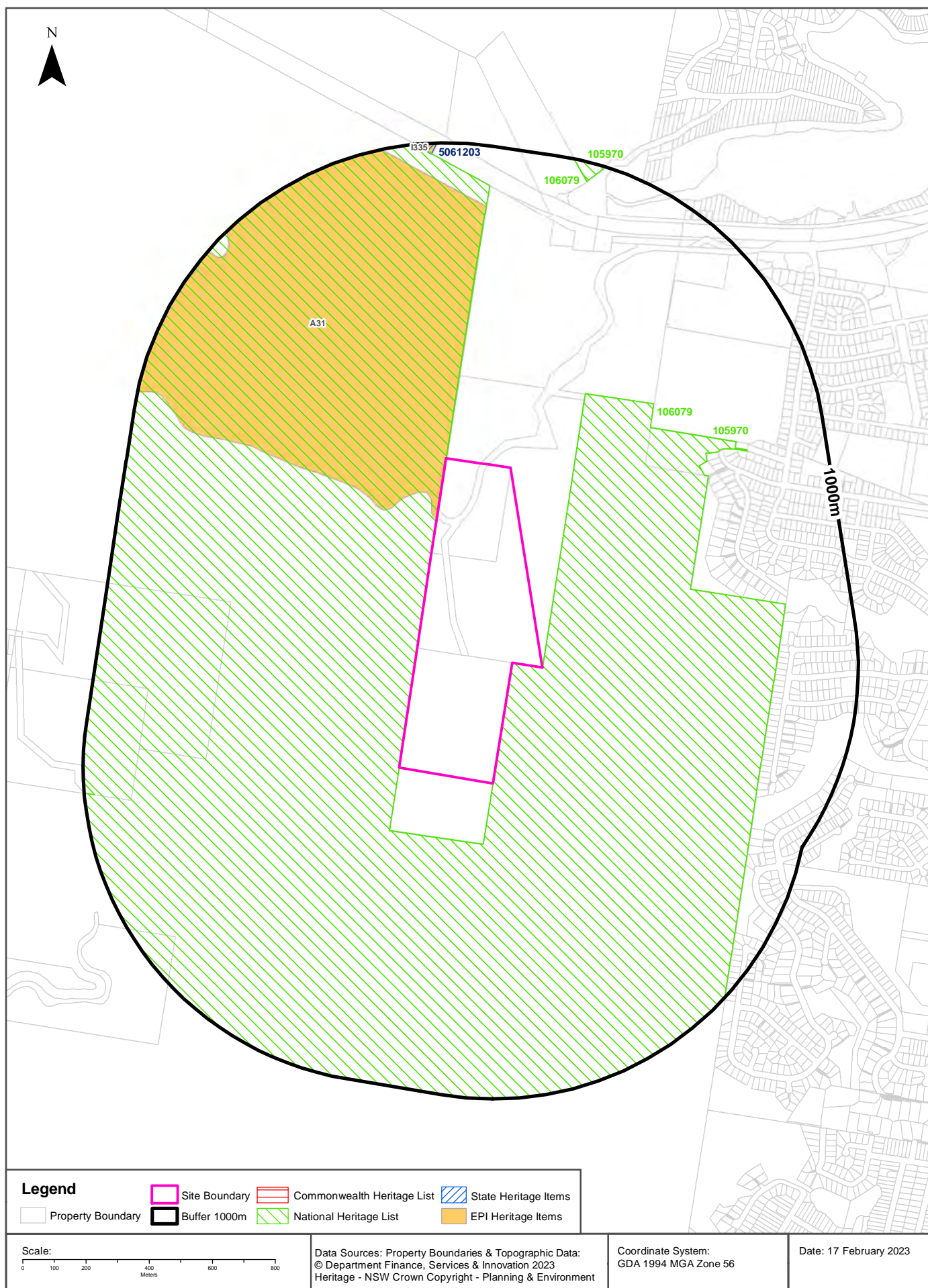
Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
SP1	Special Activities	Waste or Resource Management Facility	Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	01/08/2022		0m	On-site
C1	National Parks and Nature Reserves		Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	01/08/2022		0m	South West
SP2	Infrastructure	Sewerage System	Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	01/08/2022		266m	North
DM	Deferred Matter		Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	01/08/2022		289m	North East
C2	Environmental Conservation		Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	01/08/2022		289m	North East
C2	Environmental Conservation		Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	01/08/2022		290m	North East
C2	Environmental Conservation		Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	01/08/2022		501m	East
R2	Low Density Residential		Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	01/08/2022		561m	East
C2	Environmental Conservation		Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	01/08/2022		661m	North East
SP2	Infrastructure	Rail Infrastructure Facility	Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	01/08/2022		715m	North
RE1	Public Recreation		Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	01/08/2022		740m	East
C2	Environmental Conservation		Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	01/08/2022		758m	North East
C2	Environmental Conservation		Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	01/08/2022		782m	East
IN1	General Industrial		Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	01/08/2022		787m	North East
C2	Environmental Conservation		Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	01/08/2022		791m	South East
C2	Environmental Conservation		Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	01/08/2022		840m	South East
SP2	Infrastructure	Road	Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	01/08/2022		840m	North
IN1	General Industrial		Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	01/08/2022		854m	North
DM	Deferred Matter		Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	01/08/2022		859m	North East
RE1	Public Recreation		Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	01/08/2022		892m	North East
W2	Recreational Waterways		Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	01/08/2022		901m	North
DM	Deferred Matter		Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	01/08/2022		915m	North
C1	National Parks and Nature Reserves		Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	01/08/2022		938m	North
RE1	Public Recreation		Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	01/08/2022		941m	East
R1	General Residential		Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	01/08/2022		948m	North East
RE1	Public Recreation		Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	01/08/2022		951m	South East
R2	Low Density Residential		Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	01/08/2022		957m	North East

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
RE1	Public Recreation		Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	01/08/2022		983m	East
C2	Environmental Conservation		Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	01/08/2022		988m	North

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Heritage Items

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256



Heritage

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

Commonwealth Heritage List

What are the Commonwealth Heritage List Items located within the dataset buffer?

Place Id	Name	Address	Place File No	Class	Status	Register Date	Distance	Direction
N/A	No records in buffer							

Heritage Data Source: Australian Government Department of the Environment and Energy - Heritage Branch
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National Heritage List

What are the National Heritage List Items located within the dataset buffer?

Note. Please click on Place Id to activate a hyperlink to online website.

Place Id	Name	Address	Place File No	Class	Status	Register Date	Distance	Direction
106079	Brisbane Water and Bouddi National Parks	Pacific Hwy, Gosford NSW	1/10/052/0003	Natural	Nomination now ineligible for PPAL		0m	On-site
105970	Brisbane Water National Park	Pacific Hwy, Gosford NSW	1/10/052/0003	Natural	Nomination now ineligible for PPAL		0m	South West

Heritage Data Source: Australian Government Department of the Environment and Energy - Heritage Branch
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State Heritage Register - Curtilages

What are the State Heritage Register Items located within the dataset buffer?

Map Id	Name	Address	LGA	Listing Date	Listing No	Plan No	Distance	Direction
5061203	Woy Woy Railway Tunnel	Woy Woy Road Gosford	CENTRAL COAST	28/06/2013	01835	2562	964m	North

Heritage Data Source: NSW Crown Copyright - Office of Environment & Heritage
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Environmental Planning Instrument - Heritage

What are the EPI Heritage Items located within the dataset buffer?

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
A31	Basalt Quarries Ltd Railway	Item - Archaeological	Local	Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	01/08/2022	0m	North West
I335	Woy Woy demolition tunnel and chamber	Item - General	Local	Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	01/08/2022	965m	North

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Natural Hazards

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

Bush Fire Prone Land

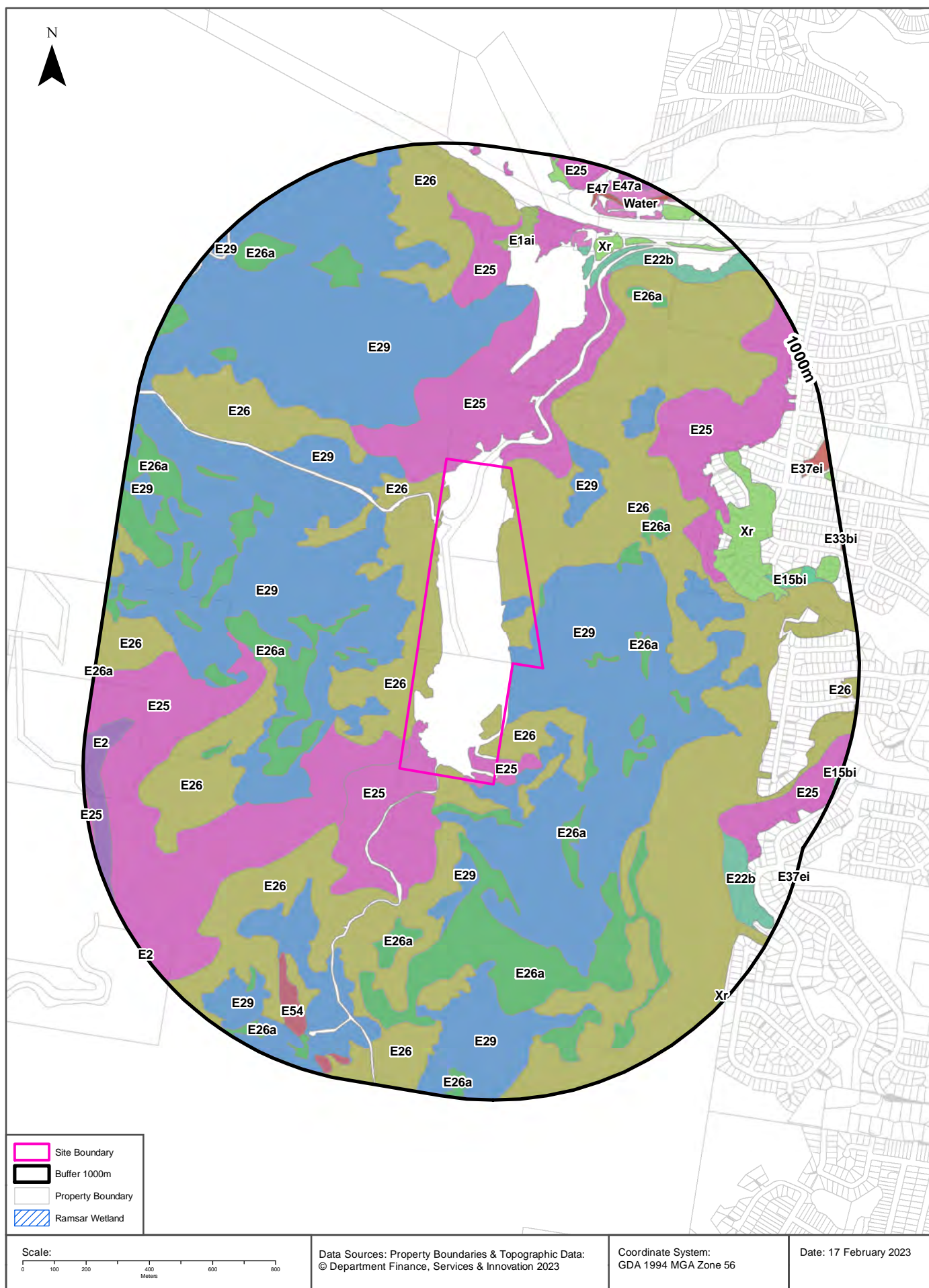
What are the nearest Bush Fire Prone Land Categories that exist within the dataset buffer?

Bush Fire Prone Land Category	Distance	Direction
Vegetation Category 1	0m	On-site
Vegetation Buffer	0m	On-site
Vegetation Category 2	902m	North East

NSW Bush Fire Prone Land - © NSW Rural Fire Service under Creative Commons 4.0 International Licence

Ecological Constraints - Vegetation & Ramsar Wetlands

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256



Ecological Constraints

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

Vegetation of Gosford LGA

What vegetation of Gosford LGA exists within the dataset buffer?

Veg Class	Community	Keith Class	REMS Name	Key Species	EEC Equivalent	Myrtle Rust	Significance	Distance	Direction
E29	E29 - Hawkesbury Banksia Scrub - Woodland	Sydney Coastal Dry Sclerophyll Forests	Hawkesbury Plateau Banksia Scrub	B.ericifolia E.haemastoma B.serrata E.umbra A.costata		Low		0m	On-site
E26	E26 - Exposed Hawkesbury Woodland	Sydney Coastal Dry Sclerophyll Forests	Exposed Hawkesbury Woodland	E.haemastoma C.gummifera A.costata E.racemosa		High		0m	On-site
E25	E25 - Hawkesbury Peppermint-Apple Forest	Sydney Coastal Dry Sclerophyll Forests	Sheltered Dry Hawkesbury Woodland	E.piperita A.costata A.torulosa S.glomulifera C.gummifera		High		0m	On-site
E26a	E26a - Hawkesbury Rock Pavement Heath	Sydney Coastal Heaths	Exposed Hawkesbury Woodland - Scrub	L.parvifolium B.brevifolia D.fascicularis K.ambigua L.microphyllus		Low	Regionally Significant Vegetation	19m	North East
Xr	Disturbed - Canopy Only			various	Individual site assessment required	Low		581m	East
E22b	E22b - Narrabeen Coastal Apple Forest	Northern Hinterland Wet Sclerophyll Forests	Coastal Narrabeen Shrub Forest	A.floribunda E.siderophloia A.torulosa		Low	Regionally Significant Vegetation	611m	North
E1ai	E1ai - Coastal Warm Temperate Rainforest	Northern Warm Temperate Rainforests/ Subtropical Rainforests	Coastal Warm Temperate - Subtropical Rainforest	A.smithii D.sassafras C.glaucescens C.apetalum E.saligna A.excelsa	Lowland Rainforest EEC (site-by-site assessment required)	Extreme	Endangered Ecological Communities	678m	North
E54	E54 - Sandstone Hanging Swamps	Coastal Heath Swamps	Sandstone Hanging Swamps	various shrubs & sedges		Low		687m	South West
E47	E47 - Estuarine Mangrove Scrub	Mangrove Swamps	Mangrove Estuarine Complex	A.marina A.corniculatum		Low	Regionally Significant Vegetation	723m	North
E15bi	E15bi - Wagstaff Spotted Gum Ironbark Forest	Northern Hinterland Wet Sclerophyll Forests	Coastal Foothills Spotted Gum - Ironbark Forest	C.maculata E.paniculata P.flexilis A.ulicifolia	Pittwater Spotted Gum Forest EEC	Low	Endangered Ecological Communities	735m	East
E2	E2 - Sandstone Ranges Gully Rainforest	Northern Warm Temperate Rainforests	Sandstone Ranges Warm Temperate Rainforest	A.elata C.apetalum B.myrtifolia D.sassafras A.smithii		Extreme	Regionally Significant Vegetation	852m	South West
Water	Water					Low		866m	North
E37ei	E37ei - Coastal Sand Swamp Forest	Coastal Swamp Forests	Swamp Mahogany - Paperbark Forest	M.quinquenervia E.robusta		High	Endangered Ecological Communities	902m	North East
E47a	E47a - Estuarine Saltmarsh/Grassland	Saltmarshes	Mangrove Estuarine Complex	S.quinqueflora S.repens S.australis Z.macrantha Svirginicus	Coastal Saltmarsh EEC	Low	Endangered Ecological Communities	930m	North

Veg Class	Community	Keith Class	REMS Name	Key Species	EEC Equivalent	Myrtle Rust	Significance	Distance	Direction
E33bi	E33bi - Umina Coastal Sands Woodland	Coastal Dune Dry Sclerophyll Forests	Coastal Sand Apple - Blackbutt Forest	A.floribunda E.botryoides C.gummifera A.costata	Umina Coastal Sands Woodland EEC	Extreme	Endangered Ecological Communities	987m	East

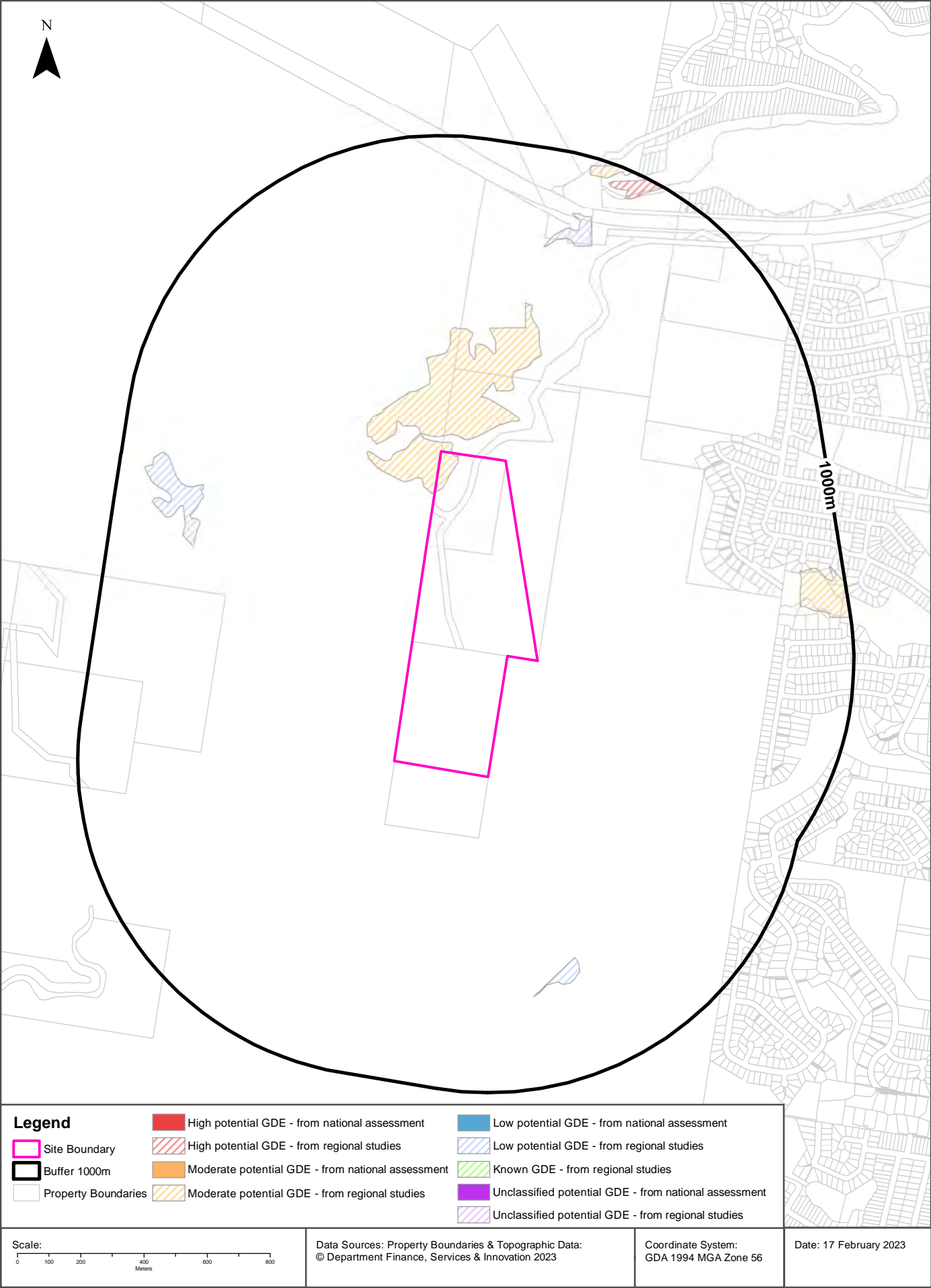
Vegetation of Gosford LGA: Council of the City of Gosford / NSW Office of Environment and Heritage

Ramsar Wetlands

What Ramsar Wetland areas exist within the dataset buffer?

Map Id	Ramsar Name	Wetland Name	Designation Date	Source	Distance	Direction
N/A	No records in buffer					

Ramsar Wetlands Data Source: © Commonwealth of Australia - Department of Agriculture, Water and the Environment



Ecological Constraints

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

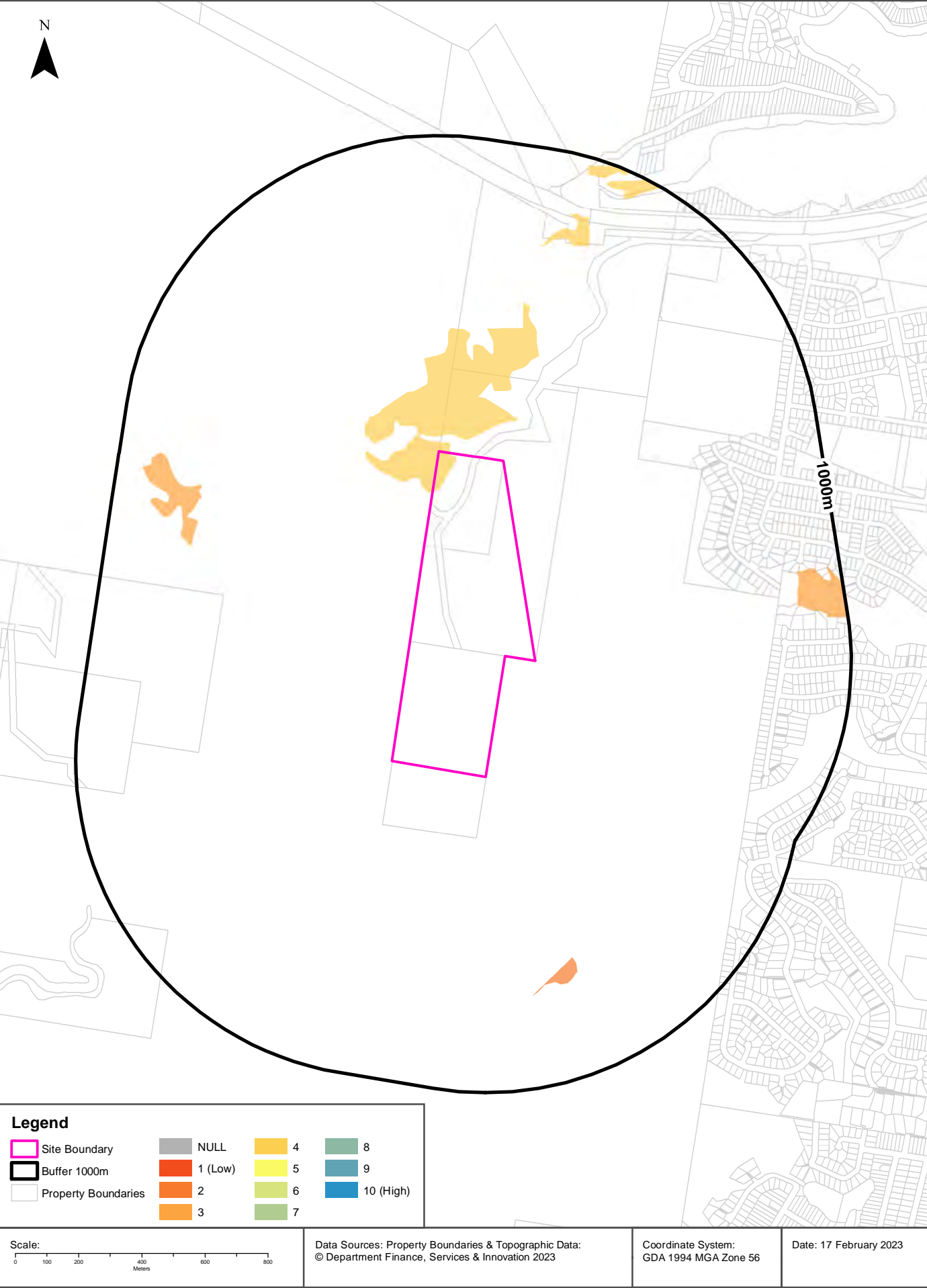
Groundwater Dependent Ecosystems Atlas

Type	GDE Potential	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
Terrestrial	Moderate potential GDE - from regional studies	Deeply dissected sandstone plateaus.	Vegetation		0m	On-site
Terrestrial	Low potential GDE - from regional studies	Deeply dissected sandstone plateaus.	Vegetation		632m	South
Terrestrial	High potential GDE - from regional studies	Deeply dissected sandstone plateaus.	Vegetation		913m	North

Groundwater Dependent Ecosystems Atlas Data Source: The Bureau of Meteorology
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Ecological Constraints - Inflow Dependent Ecosystems Likelihood

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256



Ecological Constraints

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

Inflow Dependent Ecosystems Likelihood

Type	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
Terrestrial		4 Deeply dissected sandstone plateaus.	Vegetation		0m	On-site
Terrestrial		2 Deeply dissected sandstone plateaus.	Vegetation		632m	South
Terrestrial		3 Deeply dissected sandstone plateaus.	Vegetation		721m	North West

Inflow Dependent Ecosystems Likelihood Data Source: The Bureau of Meteorology
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Ecological Constraints

Woy Woy Waste Management Facility, Nagari Road, Woy Woy, NSW 2256

NSW BioNet Atlas

Species on the NSW BioNet Atlas that have a NSW or federal conservation status, a NSW sensitivity status, or are listed under a migratory species agreement, and are within 10km of the site?

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Amphibia	Heleioporus australiacus	Giant Burrowing Frog	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Amphibia	Litoria aurea	Green and Golden Bell Frog	Endangered	Not Sensitive	Vulnerable	
Animalia	Amphibia	Mixophyes iteratus	Giant Barred Frog	Endangered	Category 2	Endangered	
Animalia	Amphibia	Pseudophryne australis	Red-crowned Toadlet	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Actitis hypoleucos	Common Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Anthochaera phrygia	Regent Honeyeater	Critically Endangered	Not Sensitive	Critically Endangered	
Animalia	Aves	Apus pacificus	Fork-tailed Swift	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Ardenna carneipes	Flesh-footed Shearwater	Vulnerable	Not Sensitive	Not Listed	ROKAMBA;JAMBA
Animalia	Aves	Ardenna grisea	Sooty Shearwater	Not Listed	Not Sensitive	Not Listed	JAMBA
Animalia	Aves	Ardenna pacifica	Wedge-tailed Shearwater	Not Listed	Not Sensitive	Not Listed	JAMBA
Animalia	Aves	Ardenna tenuirostris	Short-tailed Shearwater	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Artamus cyanopterus cyanopterus	Dusky Woodswallow	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Burhinus grallarius	Bush Stone-curlew	Endangered	Not Sensitive	Not Listed	
Animalia	Aves	Calidris acuminata	Sharp-tailed Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris canutus	Red Knot	Not Listed	Not Sensitive	Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris ferruginea	Curlew Sandpiper	Endangered	Not Sensitive	Critically Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris ruficollis	Red-necked Stint	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Callocephalon fimbriatum	Gang-gang Cockatoo	Vulnerable	Category 3	Endangered	
Animalia	Aves	Calyptorhynchus lathamii	Glossy Black-Cockatoo	Vulnerable	Category 2	Vulnerable	
Animalia	Aves	Certhionyx variegatus	Pied Honeyeater	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Charadrius leschenaultii	Greater Sand-plover	Vulnerable	Not Sensitive	Vulnerable	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Charadrius mongolus	Lesser Sand-plover	Vulnerable	Not Sensitive	Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Chthonicola sagittata	Speckled Warbler	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Circus assimilis	Spotted Harrier	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Daphoenositta chrysoptera	Varied Sittella	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Dasyornis brachypterus	Eastern Bristlebird	Endangered	Category 2	Endangered	
Animalia	Aves	Diomedea exulans	Wandering Albatross	Endangered	Not Sensitive	Endangered	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Aves	Ephippiorhynchus asiaticus	Black-necked Stork	Endangered	Not Sensitive	Not Listed	
Animalia	Aves	Epthianura albifrons	White-fronted Chat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Fregetta grallaria	White-bellied Storm-Petrel	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Aves	Gallinago hardwickii	Latham's Snipe	Not Listed	Not Sensitive	Not Listed	ROKAMBA;JAMBA
Animalia	Aves	Glossopsitta pusilla	Little Lorikeet	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Haematopus fuliginosus	Sooty Oystercatcher	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Haematopus longirostris	Pied Oystercatcher	Endangered	Not Sensitive	Not Listed	
Animalia	Aves	Haliaeetus leucogaster	White-bellied Sea-Eagle	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Halobaena caerulea	Blue Petrel	Not Listed	Not Sensitive	Vulnerable	
Animalia	Aves	Hamirostra melanosternon	Black-breasted Buzzard	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Hieraaetus morphnoides	Little Eagle	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Hirundapus caudacutus	White-throated Needletail	Not Listed	Not Sensitive	Vulnerable	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Hydroprogne caspia	Caspian Tern	Not Listed	Not Sensitive	Not Listed	JAMBA
Animalia	Aves	Irediparra gallinacea	Comb-crested Jacana	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Ixobrychus flavicollis	Black Bittern	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Lathamus discolor	Swift Parrot	Endangered	Not Sensitive	Critically Endangered	
Animalia	Aves	Limosa lapponica	Bar-tailed Godwit	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Limosa limosa	Black-tailed Godwit	Vulnerable	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Lophoictinia isura	Square-tailed Kite	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Macronectes giganteus	Southern Giant Petrel	Endangered	Not Sensitive	Endangered	
Animalia	Aves	Neophema pulchella	Turquoise Parrot	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Ninox connivens	Barking Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Ninox strenua	Powerful Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Numenius madagascariensis	Eastern Curlew	Not Listed	Not Sensitive	Critically Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Numenius minutus	Little Curlew	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Numenius phaeopus	Whimbrel	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Onychoprion fuscata	Sooty Tern	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Pandion cristatus	Eastern Osprey	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Petroica boodang	Scarlet Robin	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Petroica phoenicea	Flame Robin	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Pluvialis fulva	Pacific Golden Plover	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Pluvialis squatarola	Grey Plover	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Polytelis swainsonii	Superb Parrot	Vulnerable	Category 3	Vulnerable	
Animalia	Aves	Pomatostomus temporalis temporalis	Grey-crowned Babbler (eastern subspecies)	Vulnerable	Not Sensitive	Not Listed	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Aves	<i>Pterodroma leucoptera leucoptera</i>	Gould's Petrel	Vulnerable	Not Sensitive	Endangered	
Animalia	Aves	<i>Ptilinopus magnificus</i>	Wompoo Fruit-Dove	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	<i>Ptilinopus regina</i>	Rose-crowned Fruit-Dove	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	<i>Ptilinopus superbus</i>	Superb Fruit-Dove	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	<i>Stercorarius pomarinus</i>	Pomarine Jaeger	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	<i>Sterna hirundo</i>	Common Tern	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	<i>Sternula albifrons</i>	Little Tern	Endangered	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	<i>Thalassarche cauta</i>	Shy Albatross	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Aves	<i>Thalassarche chrysostoma</i>	Grey-headed Albatross	Not Listed	Not Sensitive	Endangered	
Animalia	Aves	<i>Thalasseus bergii</i>	Crested Tern	Not Listed	Not Sensitive	Not Listed	JAMBA
Animalia	Aves	<i>Tringa brevipes</i>	Grey-tailed Tattler	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	<i>Tringa glareola</i>	Wood Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	<i>Tringa nebularia</i>	Common Greenshank	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	<i>Tringa stagnatilis</i>	Marsh Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	<i>Tyto novaehollandiae</i>	Masked Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	<i>Tyto tenebricosa</i>	Sooty Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	<i>Xenus cinereus</i>	Terek Sandpiper	Vulnerable	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Gastropoda	<i>Meridolum maryae</i>	Maroubra Woodland Snail	Endangered	Not Sensitive	Not Listed	
Animalia	Insecta	<i>Petalura gigantea</i>	Giant Dragonfly	Endangered	Not Sensitive	Not Listed	
Animalia	Mammalia	<i>Arctocephalus forsteri</i>	New Zealand Fur-seal	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	<i>Arctocephalus pusillus doriferus</i>	Australian Fur-seal	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	<i>Cercartetus nanus</i>	Eastern Pygmy-possum	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	<i>Chalinolobus dwyeri</i>	Large-eared Pied Bat	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	<i>Dasyurus maculatus</i>	Spotted-tailed Quoll	Vulnerable	Not Sensitive	Endangered	
Animalia	Mammalia	<i>Dugong dugon</i>	Dugong	Endangered	Not Sensitive	Not Listed	
Animalia	Mammalia	<i>Eubalaena australis</i>	Southern Right Whale	Endangered	Not Sensitive	Endangered	
Animalia	Mammalia	<i>Falsistrellus tasmaniensis</i>	Eastern False Pipistrelle	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	<i>Isodon obesulus obesulus</i>	Southern Brown Bandicoot (eastern)	Endangered	Not Sensitive	Endangered	
Animalia	Mammalia	<i>Micronomus norfolkensis</i>	Eastern Coastal Free-tailed Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	<i>Miniopterus australis</i>	Little Bent-winged Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	<i>Miniopterus orianae oceanensis</i>	Large Bent-winged Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	<i>Myotis macropus</i>	Southern Myotis	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	<i>Nyctophilus bifax</i>	Eastern Long-eared Bat	Vulnerable	Not Sensitive	Not Listed	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Mammalia	Petauroides volans	Greater Glider	Endangered	Not Sensitive	Endangered	
Animalia	Mammalia	Petaurus australis	Yellow-bellied Glider	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	Petaurus australis	Yellow-bellied Glider	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Petaurus norfolcensis	Squirrel Glider	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Phascolarctos cinereus	Koala	Endangered	Not Sensitive	Endangered	
Animalia	Mammalia	Phoniscus papuensis	Golden-tipped Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Physeter macrocephalus	Sperm Whale	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Potorous tridactylus	Long-nosed Potoroo	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	Pseudomys gracilicaudatus	Eastern Chestnut Mouse	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Pseudomys novaehollandiae	New Holland Mouse	Not Listed	Not Sensitive	Vulnerable	
Animalia	Mammalia	Pteropus poliocephalus	Grey-headed Flying-fox	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	Saccolaimus flaviventris	Yellow-bellied Sheathail-bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Scoteanax rueppellii	Greater Broad-nosed Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Vespadelus troungtoni	Eastern Cave Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Reptilia	Antaresia stimsoni	Stimson's Python	Vulnerable	Not Sensitive	Not Listed	
Animalia	Reptilia	Caretta caretta	Loggerhead Turtle	Endangered	Not Sensitive	Endangered	
Animalia	Reptilia	Chelonia mydas	Green Turtle	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Reptilia	Dermochelys coriacea	Leatherback Turtle	Endangered	Not Sensitive	Endangered	
Animalia	Reptilia	Eretmochelys imbricata	Hawksbill Turtle	Not Listed	Not Sensitive	Vulnerable	
Animalia	Reptilia	Varanus rosenbergi	Rosenberg's Goanna	Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Acacia pubescens	Downy Wattle	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Acacia terminalis subsp. Eastern Sydney	Sunshine wattle	Endangered	Not Sensitive	Endangered	
Plantae	Flora	Ancistrachne maidenii		Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Astrotricha crassifolia	Thick-leaf Star-hair	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Baloskion longipes	Dense Cord-rush	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Callistemon linearifolius	Netted Bottle Brush	Vulnerable	Category 3	Not Listed	
Plantae	Flora	Chamaesyce psammogeton	Sand Spurge	Endangered	Not Sensitive	Not Listed	
Plantae	Flora	Darwinia glaucophylla		Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Darwinia peduncularis		Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Diuris bracteata		Endangered	Category 2	Extinct	
Plantae	Flora	Epacris purpurascens var. purpurascens		Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Eucalyptus camfieldii	Camfield's Stringybark	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Eucalyptus glaucina	Slaty Red Gum	Vulnerable	Not Sensitive	Vulnerable	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Plantae	Flora	Eucalyptus nicholii	Narrow-leaved Black Peppermint	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Grevillea shiressii		Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Hibbertia procumbens	Spreading Guinea Flower	Endangered	Not Sensitive	Not Listed	
Plantae	Flora	Hibbertia puberula		Endangered	Not Sensitive	Not Listed	
Plantae	Flora	Lasiopetalum joyceae		Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Macadamia integrifolia	Macadamia Nut	Not Listed	Not Sensitive	Vulnerable	
Plantae	Flora	Maundia triglochinosides		Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Melaleuca biconvexa	Biconvex Paperbark	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Melaleuca deanei	Deane's Paperbark	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Micromyrtus blakelyi		Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Persoonia hirsuta	Hairy Geebung	Endangered	Category 3	Endangered	
Plantae	Flora	Prostanthera askania	Tranquility Mintbush	Endangered	Not Sensitive	Endangered	
Plantae	Flora	Prostanthera junonis	Somersby Mintbush	Endangered	Not Sensitive	Endangered	
Plantae	Flora	Rhodamnia rubescens	Scrub Turpentine	Critically Endangered	Not Sensitive	Critically Endangered	
Plantae	Flora	Rhodomyrtus psidioides	Native Guava	Critically Endangered	Not Sensitive	Critically Endangered	
Plantae	Flora	Syzygium paniculatum	Magenta Lilly Pilly	Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	Tetradlea glandulosa		Vulnerable	Not Sensitive	Not Listed	

Data does not include NSW category 1 sensitive species.

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LC Code	Location Confidence
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Area Match	Georeferenced to an approximate or general area
Road Match	Georeferenced to a road or rail corridor
Road Intersection	Georeferenced to a road intersection
Buffered Point	A point feature buffered to x metres
Adjacent Match	Land adjacent to a georeferenced feature
Network of Features	Georeferenced to a network of features
Suburb Match	Georeferenced to a suburb boundary
As Supplied	Spatial data supplied by provider

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