M1 Princes Motorway Mount Ousley Interchange

Addendum Review of Environmental Factors

Cardno (now Stantec) | July 2022

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Transport for NSW | July 2022

Prepared by Cardno (now Stantec) and Transport for NSW

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Executive summary

The proposed modification

In November 2017, Transport for NSW (TfNSW) (formerly Roads and Maritime Services) determined a review of environmental factors (REF) for the Mount Ousley Interchange Project (the Project).

TfNSW proposes to modify the Mount Ousley Interchange Project (MOI) through amendments to the REF proposal area and additional construction activities. Key features of the proposed modification include:

- Additional utility works outside of the REF proposal area (as defined in the project REF) at Northwood Road, Sunninghill Circuit, Dumfries Avenue, Binda Street, Dallas Street, Irvine Street, and Northfields Avenue
- Addition of a Traffic Incident Response Facility (TIR Facility) located in the area adjacent to the commuter carpark. The TIR Facility would provide faster response times to traffic incidents in the area
- A proposed temporary laydown area located within the University of Wollongong (UOW) P5 North carpark
- Modifications to the REF proposal area to allow for a safe and adequate footprint for carrying out construction.

To address these proposed changes, this addendum REF has been prepared to document potential environmental impacts of the proposed modification.

Background

The project REF was prepared for the Mount Ousley Interchange project on 10 November, 2017. The project REF was placed on public display between 16 November and 15 December 2017 for community and stakeholder comment. A submissions report, approved 16 March 2018, was prepared to respond to the issues raised.

Following publication of the submissions report, a review of the concept design was undertaken and the need for the proposed modification identified to facilitate the delivery of the project.

Need for the proposed modification

Chapter 2 of the project REF addresses the strategic need for the project, the project objectives and the options considered. The proposed modification described in this addendum REF is consistent with the project's strategic need and objectives.

The proposed modification is needed to improve the safety of the project's construction activities, improve accessibility during construction and improve and maintain the performance of the M1 Princes Motorway, assets and public utilities in proximity to the project.

Utility crossings lie beneath the M1 Princes Motorway. Further refinement of the concept design identified the need to adjust the local utility networks where the proposed crossings meet the existing networks. The proposed location for the TIR Facility adjacent to the commuter carpark has been identified as more suitable instead of adjacent to Gowan Brae Avenue, as proposed in the project REF. The use of the UOW P5 North Carpark would allow safer access for utility works in Falder Place and would reduce the disruptions to adjacent residents during these works. Modification to the proposal area would allow for all features of the proposed modification to be constructed and would also provide adequate storage for construction materials, plant and equipment while maintaining safe and efficient operation of the construction site.

Proposal objectives

Section 2.3 of the project REF identified the project objectives that apply to the proposed modification.

The proposed modification would facilitate the overall project objectives while minimising adverse environmental and socio-economic impacts.

Options considered

Section 2.4 of the project REF discussed the options considered for the project. In developing alternatives and options for key features of the proposed modification, TfNSW sought to meet project objectives while ensuring that social and environmental impacts from the proposed modification were minimised.

Option 1 would involve carrying out the project as described in the project REF and Submissions Report. This option would not ensure sufficient safe working room for construction and does not allow for construction of crucial features of the proposed modification outside of the REF proposal area. As this does option does not achieve objectives of the project it was not considered further.

Option 2 would involve carrying out all features of the proposed modification including additional utility works, altering the location of the TIR Facility, a temporary laydown area and adjustments to the REF proposal area.

Option 2 is the preferred option as it facilitates construction of the project, ensures the connectivity of the utility networks in and near the proposal, places the TIR Facility in a more suitable location and would also provide adequate storage for construction materials, plant and equipment while maintaining safe and efficient operation of the construction site.

Statutory and planning framework

The Mount Ousley Interchange project was assessed and approved pursuant to the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The proposed modification has also been assessed under Part 5 Division 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

TfNSW is the proponent and determining authority for the proposed modification. The proposed modification is categorised as development for the purpose of a road and road infrastructure facilities and is being carried out on behalf of a public authority (TfNSW).

Under clause 2.108 of the State Environmental Planning Policy (Transport and Infrastructure) 2021 (TI SEPP) the proposed modification is permissible without consent. The proposed modification is not State significant infrastructure or State significant development. Consent from Council is not required.

Impacts to Biodiversity for the proposed modification have been assessed and a Biodiversity Development Assessment Report (BDAR) or Species Impact Statement (SIS) are not required.

No matters of national environmental significance are to be likely to be significantly affected by the proposed modification so a referral under the *Environment Protection and Biodiversity Conservation Act* 1999 (EPBC Act) is not required.

The proposed modification is not considered likely to have a significant impact on the environment and would not require the preparation of an Environmental Impact Statement (EIS).

Community and stakeholder consultation

Consultation with potentially affected property owners, relevant government agencies and other stakeholders was carried out by TfNSW (formerly Roads and Maritime) during the development and concept design phase of the approved project REF and submissions report.

TfNSW has consulted with utility providers, Wollongong City Council (WCC), the UOW, TAFE NSW Wollongong Campus and the NSW Environment Protection Authority (EPA) during the development of this addendum REF.

Environmental impacts

The main environmental impacts for the proposed modification are:

Biodiversity

There is an increase in the loss of vegetation of 0.33 hectares due to the proposed utility works and modifications to the proposal area. The additional vegetation which would be lost has been assessed as Roadside and Landscape plantings which are not considered to correspond with any Plant Community Type (PCT). It may provide marginal foraging habitat for some species however it would only be used intermittently and is not considered a key resource for those species. The proposed modification would not cause additional impact to threatened species or their habitat.

The TfNSW Guideline for Biodiversity Offsets (Roads and Maritime 2016) was used to identify relevant biodiversity offset requirements for the proposed modification. The strategy for biodiversity offsets remains consistent with what is described in the project REF however a 0.15 ha reduction in offset requirements was identified.

Surveys for the project REF recorded four individuals of threatened flora species *Syzygium paniculatum* (Magenta Lily Pilly) assessed to be cleared for the project, however during the survey for this addendum REF evidence was found that these individuals were not naturally occurring and were planted in the 1990s. As such, offsets are no longer required for *Syzygium paniculatum* plants.

Topography, geology and soils

Actual and potential contamination risks exist within the proposal area however these contamination risks have been identified as of a low and acceptable risk to human and ecological receptors under the current and proposed land-use. The following have been identified as having a greater contamination risk, than the other risks identified:

- Buried utilities may present a risk to current and future workers in the proposal area as they potentially contain asbestos
- Acid sulphate soil or rock may present a risk to human health and the environment downgradient of the proposed modification if it is encountered and acidic leachate is generated
- Remnant layers of asphalt which may contain coal tar could present a risk to human health and the environment if exposed during construction.

Landscape character and visual impacts

Trees within the residential areas may need to be removed to allow for the proposed utility network adjustments. This would result in minor impacts to the visual amenity and landscape character in several locations until compensatory planting establish. Additional safeguards and management measures to minimise the number of trees impacted in residential streets have been proposed.

The new location of the proposed TIR Facility would create some visual impact which would need to be considered during the project's detailed design. Vegetation to be removed from this location and the associated visual impacts have been assessed in the project REF. The new location of the proposed TIR Facility is within this area to be cleared and would not result in

additional impacts to landscape character and visual amenity than that assessed in the project REF.

Justification and conclusion

The proposed modification is subject to assessment under Division 5.1 of the EP&A Act. This addendum REF has assessed and considered to the fullest extent possible all matters impacting or likely to impact the environment by reason of the proposed modification.

A number of potential environmental impacts from the proposed modification have been avoided or reduced during the design development and options assessment. The proposed modification as described in the addendum REF best meets the project objectives, though would still result in some environmental impacts. Safeguards and management measures as detailed in this addendum REF would be implemented and minimise these expected impacts.

In accordance with the project REF, the proposed modification would facilitate the delivery of the project and is consistent with the project objectives. The proposed modification facilitates the delivery of the project and would also improve safety for workers and the public and reduce potential impacts on local residents in some areas. The proposed modification is considered justified.

The proposed modification would not result in a substantial change to the findings of the project REF and submissions report, and would be unlikely to cause a significant impact on the environment. Therefore it is not necessary for an Environmental Impact Statement (EIS) to be prepared and approval to be sought from the Minister for Planning and Public Spaces under Division 5.2 of the EP&A Act. A Biodiversity Development Assessment Report (BDAR) or Species Impact Statement (SIS) is not required. The proposed modification is subject to assessment under Division 5.1 of the EP&A Act. Consent from Council is not required.

The proposed modification would not likely cause a significant impact on matters of national environmental significance or the environment of Commonwealth land within the meaning of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). A referral to the Australian Government Department of Agriculture, Water and the Environment (DAWE) is not required.

Contents

Appendices

1 Introduction

1.1 Background

The M1 Princes Motorway and Mount Ousley Road is the primary road link connecting Sydney and the Illawarra region. Originally constructed in 1975, Mount Ousley Road has experienced increasing levels of traffic as Wollongong and the greater Illawarra region continues to grow. A traffic assessment conducted in 2017 predicted that the section of road at the base of Mount Ousley experienced an average daily traffic count of approximately 50,000 vehicles, of which 15 per cent were heavy vehicles. In addition to heavy traffic congestion, 56 crashes were recorded between 2011 and 2016 (Jacobs, 2017).

Due to the poor road network performance and associated safety issues in this location, Transport for NSW (TfNSW) proposed a new intersection at the base of Mount Ousley Road. The objective of the intersection would be to reduce the conflict between light vehicles travelling at 80km per hour and heavy vehicles travelling at 40km per hour. It would also create an alternative entry and exit into the University of Wollongong (UOW), ultimately reducing the level of traffic to the south of Mount Ousley Road.

1.2 Proposed modification overview

A review of environmental factors (REF) was prepared for the Mount Ousley Interchange project (MOI) on 10 November 2017 (referred to in this addendum as the project REF). The project REF was placed on public display between 16 November and 15 December 2017 for community and stakeholder comment. A submissions report, approved 16 March 2018, was prepared to respond to the issues raised.

TfNSW proposes to modify the MOI project through refinements to the approved design and additional construction activities. Key features of the proposed modification include:

- Additional utility works outside of the REF proposal area (as defined in the project REF) at Northwood Road, Sunninghill Circuit, Dumfries Avenue, Binda Street, Dallas Street, Irvine Street, and Northfields Avenue
- Addition of a Traffic Incident Response Facility (TIR Facility) located in the area adjacent to the commuter carpark. The TIR Facility would provide faster response times to traffic incidents in the area
- A proposed temporary laydown area located within the UOW P5 North carpark
- Modifications to the REF proposal area to allow for a safe and adequate footprint for carrying out construction.

The location of the proposed modification is shown below in Figure 1-1. The proposed modification includes adjustment to the project REF proposal area which is shown in Figure 1-2.

Figure 1-1 Location of the proposed modification

Figure 1-2 The proposed modification

1.3 Purpose of the report

This addendum REF has been prepared by Cardno (now Stantec) on behalf of TfNSW. For the purposes of these works, TfNSW is the proponent and the determining authority under Division 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

This addendum REF is to be read in conjunction with the project REF and the submissions report. The purpose of this addendum REF is to describe the proposed modification, to document and assess the likely impacts of the proposed modification on the environment, and to detail mitigation and management measures to be implemented.

The description of the proposed modification and assessment of associated environmental impacts has been undertaken in context of section 171 of the *Environmental Planning & Assessment Regulations 2021*, Part 5.1 Environmental Assessment Guidelines 2022, the *Biodiversity Conservation Act 2016* (BC Act), the *Fisheries Management Act 1994* (FM Act), and the Australian Government's *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The addendum REF helps to fulfil the requirements of Section 5.5 of the EP&A Act including that TfNSW examine and take into account to the fullest extent possible, all matters affecting or likely to affect the environment by reason of the activity.

The findings of the addendum REF would be considered when assessing:

- Whether the proposed modification is likely to result in a significant impact on the environment and therefore the necessity for an environmental impact statement to be prepared and approval to be sought from the Minister for Planning and Public Spaces under Division 5.2 of the EP&A Act
- The significance of any impact on threatened species as defined by the BC Act and/or FM Act, in section 1.7 of the EP&A Act and therefore the requirement for a Species Impact Statement or a Biodiversity Development Assessment Report
- The significance of any impact on nationally listed biodiversity matters under the EPBC Act, including whether there is a real possibility that the activity may threaten long-term survival of these matters, and whether offsets are required and able to be secured
- The potential for the proposed modification to significantly impact any other matters of national environmental significance or Commonwealth land and therefore the need to make a referral to the Australian Government Department of Agriculture, Water and the Environment for a decision by the Australian Government Minister for the Environment on whether assessment and approval is required under the EPBC Act.

2 Need and options considered

2.1 Strategic need for the proposed modification

Chapter 2 of the project REF addresses the strategic need for the project, the project objectives and options that were considered. The proposed modification described in this addendum REF is consistent with the project's strategic need and objectives.

The proposed modification is needed to improve the safety of the project's construction activities, provide additional road management facilities to improve and maintain the performance of the M1 Princes Motorway, and to assist the maintenance of assets and public utilities in proximity to the project.

2.2 Proposal objectives and development criteria

Section 2.3 of the project REF identifies the proposal objectives and development criteria. These apply to the proposed modification and are described below:

- Improve safety by addressing conflicting movements and the interaction between light and heavy vehicles
- Improve travel time and efficiency for vehicles travelling on this length of the M1 Princes Motorway
- Provide for the growing freight task including supporting the expanding port at Port Kembla
- Enhance accessibility between the M1 Princes Motorway and Wollongong CBD.

In addition to the objectives described above, TfNSW would seek to address the following items associated with the MOI project:

- Consider enhanced accessibility between the M1 Princes Motorway and the UOW
- Maintain or improve the visual driving experience and amenity in this section of the M1 Princes Motorway
- Improve amenity by considering the needs of pedestrians, cyclists and public transport
- Minimise disruptions and delays to traffic during construction and ensure that road users are kept informed of travel conditions during works
- Minimise the broader social and environmental impacts of the development
- Achieve an overall result that provides the best value for money for the entire project lifecycle.

The proposed modification would facilitate these objectives.

2.3 Alternatives and options considered

TfNSW investigated several options during preparation of the proposed modification. These options were considered against the following:

- Consistency with the project objectives
- Ensuring that social and environmental impacts from the development are minimised.

The options considered as part of this proposed modification have been broken down into key aspects and discussed in further detail in Sections 2.3.1 to 2.3.5.

2.3.1 Additional utility works outside of the REF proposal area

Option 1 – Do nothing

The 'Do nothing' option would involve carrying out the project as described in the project REF and Submissions Report.

Option 2- Proposed modification

Additional utility works are required at Northwood Road, Sunninghill Circuit, Dumfries Avenue, Binda Street, Dallas Street, Irvine Street, and Northfields Avenue.

Since the project REF, review and refinement of the concept design for proposed utility crossings beneath the M1 Princes Motorway and how these would be connected to existing utilities were carried out. Additional utility works outside of the REF proposal area were identified. The additional utility works are mainly located within the road reserve.

2.3.2 Addition of a TIR Facility located in the area adjacent to the commuter carpark

Option 1 – Do nothing

The 'Do nothing' option would involve carrying out the project as described in the project REF and Submissions Report. The REF proposed that following the completion of construction, a TIR Facility would be constructed at the proposed ancillary site bounded by Gowan Brae Avenue in the east and Mount Ousley Road to the north.

Option 2- Proposed modification

The modification proposes that the TIR Facility be located adjacent to the future commuter carpark to the south of the M1 Princes Highway. The TIR Facility would consist of a single-story building, vehicle parking and perimeter fencing and would allow for faster responses to traffic incidents in the area. The final layout of the TIR Facility would be confirmed during the detailed design stage.

2.3.3 A proposed temporary laydown area in the UOW P5 North carpark

Option 1 – Do nothing

The 'Do nothing' option would involve carrying out the project as described in the project REF and Submissions Report and not include a temporary laydown area within the UOW P5 north Carpark

Option 2 – Proposed modification

A temporary laydown area is proposed within the UOW P5 North carpark to accommodate temporary construction activities such as vehicle parking and storage of materials.

The perimeter of the laydown area would be established using secured, temporary fencing and signs to restrict public access. Any use of the carpark for construction access or storage would need to be in consultation with UOW during the detailed design and construction phases.

2.3.4 Modifications to the REF proposal area to allow for a safe and adequate footprint for carrying out construction.

Option 1 – Do nothing

The 'Do nothing' option would involve carrying out the project as described in the project REF and Submissions Report . Construction works would be carried out within the REF proposal area.

Option 2 – Proposed modification

It is proposed to adjust the REF proposal area to provide access and a safe and adequate work area for construction. Adjustments to the proposal area have been identified at the following locations:

- Northwood Road, Sunninghill Circuit, Dumfries Avenue, Binda Street, Dallas Street, Irvine Street, and Northfields Avenue for utility works
- Dumfries Avenue near Mount Ousley Road for construction of pedestrian bridge over Mount Ousley Road
- Mount Ousley Road for construction of the roundabout at Gaynor Avenue
- TAFE NSW Wollongong Campus for scour rock protection at a culvert outlet
- UOW to allow access along the UOW ring road between Northfields Avenue and adjacent to UOW sports fields
- UOW for works at the intersection between the UOW ring road, and access into the UOW from the M1 Princes Motorway and Mount Ousley Road.

2.4 Preferred option

Based on a review of all options considered, the preferred options for each of the key aspects associated with the proposed modification have been selected and outlined below.

2.4.1 Additional utility works outside of the REF proposal area

Option 1 (the 'Do nothing' option) was considered, however the additional utility works are necessary to complete the project. Without these works, majority of the current utilities would clash with the new retaining/noise walls and drainage network. Due to the dependency of other features of the project on the additional utility works, Option 1 is not viable.

Option 2 was selected as the preferred option as it allows installation of new infrastructure required to ensure the project operates effectively.

2.4.2 Addition of a TIR Facility located in the area adjacent to the commuter carpark

Option 1 (the 'Do nothing' option) was considered and confirmed that leaving the location of the TIR Facility as approved in the project REF would still meet the project objectives.

However, Option 2 provides a more suitable location for TIR Facility. The TIR Facility would be located on the southern side of the motorway adjacent to the proposed commuter car park and in closer proximity to the proposed interchange. This would enable faster response times to incidents on the M1 Princes Motorway and surrounding areas.

The proposed option would also provide more distance between the TIR Facility and private residences, reducing potential noise and visual impacts. Option 2 is the preferred option and achieves the following project objective:

- Minimise the broader social and environmental impacts of the development

2.4.3 Proposed temporary laydown area in the UOW P5 North Carpark

Utility works are proposed beneath the M1 Princes Motorway from Dumfries Avenue to Falder Place. These works would require a sufficiently sized and safe temporary laydown area for storing materials and parking vehicles. Without provision of a temporary laydown area in this location, additional area along Falder Place would be required to be used during construction and would potentially impact residents in the area.

Option 2 provides a temporary laydown area within the UOW P5 North carpark and is the preferred option as it has the advantage of providing safer access for the utility works at Falder Place. It also avoids disruption to the adjacent residents that may occur from additional space required along Falder Place for construction. It will also have adequate storage for construction materials, plant and equipment while maintaining safe and efficient operation of the construction site.

The use of a portion of the UOW P5 North carpark for construction would result in the temporary loss of carparking spaces for UOW however it would allow greater separation from the public and construction works if the laydown area is appropriately fenced to restrict public access. Any use of the carpark would need to be in consultation with UOW.

This achieves the project objective to:

- Minimise the broader social and environmental impacts of the development.

2.4.4 Modifications to proposal area to allow for a safe footprint for construction work to occur

Option 1 (the 'Do nothing' option) does not ensure sufficient safe working room for construction to occur in several locations and does not allow for construction of some features of the proposed modification as they are outside of the proposal area of the REF. As this does option does not achieve objectives of the project it was not considered further.

Option 2 to provide modifications to the proposal area is the preferred option as it will allow the project and proposed modification to be constructed. These modifications will also provide adequate storage for construction materials, plant and equipment while maintaining safe and efficient operation of the construction site.

3 Description of the proposed modification

3.1 The proposed modification

The project REF was determined for MOI project on 10 November 2017. TfNSW proposes to modify the project through refinements to the concept design and additional construction activities.

The proposed modification is shown in Figure 1-1 and in further detail in Figure 3-1 to Figure 3-3.

Key features of the proposed modification would include:

- Additional utility works located outside of the REF proposal area at Northwood Road, Sunninghill Circuit, Dumfries Avenue, Binda Street, Dallas Street, Irvine Street, and Northfields Avenue
- Addition of a TIR Facility located in the area adjacent to the commuter carpark
- Addition of a proposed temporary laydown area located within UOW P5 North carpark
- Modifications to the REF proposal area to allow for a safe and adequate footprint for carrying out construction.

3.2 Design

3.2.1 Design criteria

The design criteria for the proposed modification would be consistent with the design criteria described in the project REF and current TfNSW design specifications.

3.2.2 Engineering constraints

Engineering constraints are identified in Section 3.2.3 of the project REF. As part of the review undertaken on the options for this proposed modification, no further engineering constraints were identified.

3.2.3 Main features of the modification

Additional utility works outside the REF proposal area

Since the project REF, a review of the proposed utility crossings beneath the M1 Princes Motorway and their connection to existing utilities identified the need for additional utility works. These works are located outside the project REF proposal area.

Additional utility works are proposed at Northwood Road, Sunninghill Circuit, Dumfries Avenue, Binda Street, Dallas Street, Irvine Street, and Northfields Avenue. These works are located mainly within the road reserve.

There are utility crossings from Dumfries Avenue to Falder Place including high voltage electrical, water main, high pressure gas, optical fibre and telecommunications. The modification of these utility crossings beneath the M1 Princes Motorway requires adjustments to the utility networks in Northwood Road, Sunninghill Circuit, Dumfries Avenue, Binda Street and Dallas Street.

Utilities also cross the M1 Princes Motorway near Northfields Avenue. The utility adjustments in these locations would require additional works in Irvine Street and Northfields Avenue.

Utility adjustments would include trenching or under boring, installation of cables, pipes and associated infrastructure, and reinstatement of ground surface levels to that of existing. Utility adjustments would be undertaken within the road reserve and would not require private property connections. Any activities requiring works within a private property would be managed through the approval pathway obtained by the relevant service provider. A summary of these utilities and the locations where these works will be required have been included in Figure 3-1 and Figure 3-3.

Addition of a TIR Facility

A TIR Facility was included as an option in the project REF. This facility was proposed to be constructed on the northern side of the motorway adjacent to Gowen Brae Avenue. A more suitable location for the TIR Facility has since been identified and located on the southern side of the motorway adjacent to the commuter car park. The proposed location for the TIR Facility is shown in Figure 3-2.

The TIR Facility will consist of:

- A single building (approximately 20 metres x 24 metres in size)
- Six light vehicle parking spaces
- One light tow vehicle space
- One heavy tow vehicle space
- Perimeter fencing.

The final layout of the TIR Facility would be confirmed during the detailed design stage. It would be located adjacent to the commuter carpark. No car parking spaces would be lost as a result of the proposed modification.

Proposed temporary laydown area in the UOW P5 North carpark

A temporary laydown area is proposed within the UOW P5 North carpark to accommodate the following temporary construction activities and facilities:

- Offices and amenities
- Storage and laydown area for plant and materials
- Stockpiling
- Construction vehicle parking.

The laydown area would be established and managed in accordance with the Stockpile Site Management Guideline (Roads and Maritime 2015). The perimeter would be securely fenced with temporary fencing and signs advising the general public of access restrictions in place.

The site to occupy to proposed laydown area would be restored upon completion of construction, including the removal of all construction plant, equipment, buildings, site vehicles and restoration of the carpark to pre-existing condition.

Consultation with the UOW on the layout and use of this area would be undertaken during the detailed design and construction phase of the project.

The indicative location of the laydown facility is shown in Figure 3-2 below.

Modifications to REF proposal area

Since the project REF was first approved in 2017, TfNSW have undertaken a number of reviews looking at the design and constructability of works within proximity to the project proposal area. These reviews focused on refining the efficiency and safety of construction activities across the Project. These reviews assessed activities against the following criteria:

- Access to existing public utility connections and design refinements for relocated services
- Traffic management and provision of safe access and egress for heavy vehicles entering, exiting and moving around construction work zones
- Delineation between active construction areas and public open spaces (within the UOW campus, local roads and pedestrian access)
- Sufficient safe working room within the proposal area with allowance for installation of safety delineation and environmental controls.

Based on the criteria described above, this addendum REF proposes modifications to the REF proposal area to provide adequate area for safe and efficient construction. Adjustments to the REF proposal area have been identified at the following locations:

- Northwood Road, Sunninghill Circuit, Dumfries Avenue, Binda Street, Dallas Street, Irvine Street, and Northfields Avenue
- Dumfries Avenue near Mount Ousley Road to construct the pedestrian bridge over Mount Ousley Road
- Mount Ousley Road to construct the roundabout at Gaynor Avenue
- TAFE NSW Wollongong Campus for scour rock protection at a culvert outlet
- The UOW for access along the UOW ring road between Northfields Avenue and access adjacent to UOW sports fields
- The UOW for works at the intersection between the UOW ring road and access into the UOW from the M1 Princes Motorway and Mount Ousley Road.

Adjustments to the proposal area are shown below, in Figure 3-1 to Figure 3-3

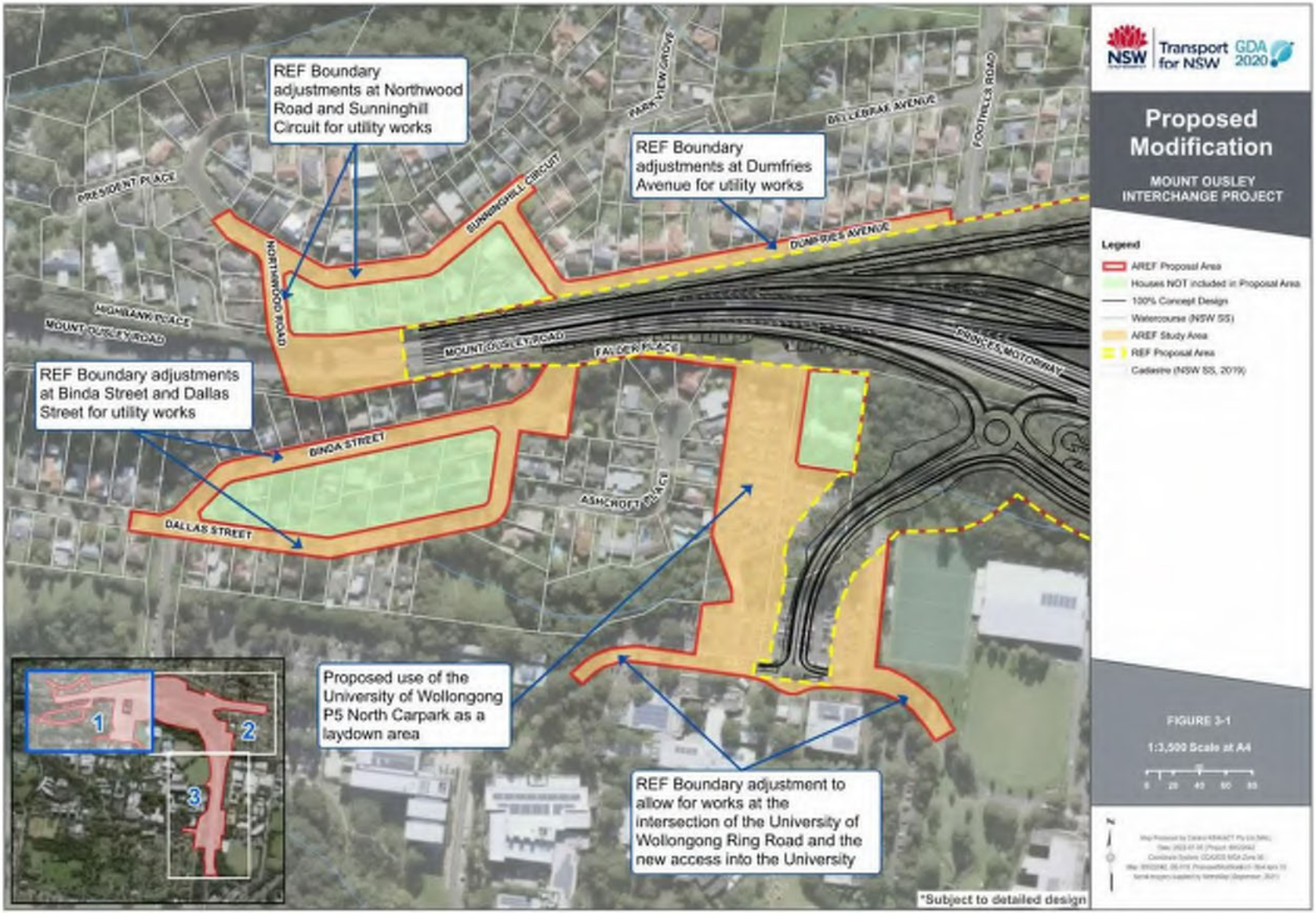


Figure 3-1 Proposed modification western portion

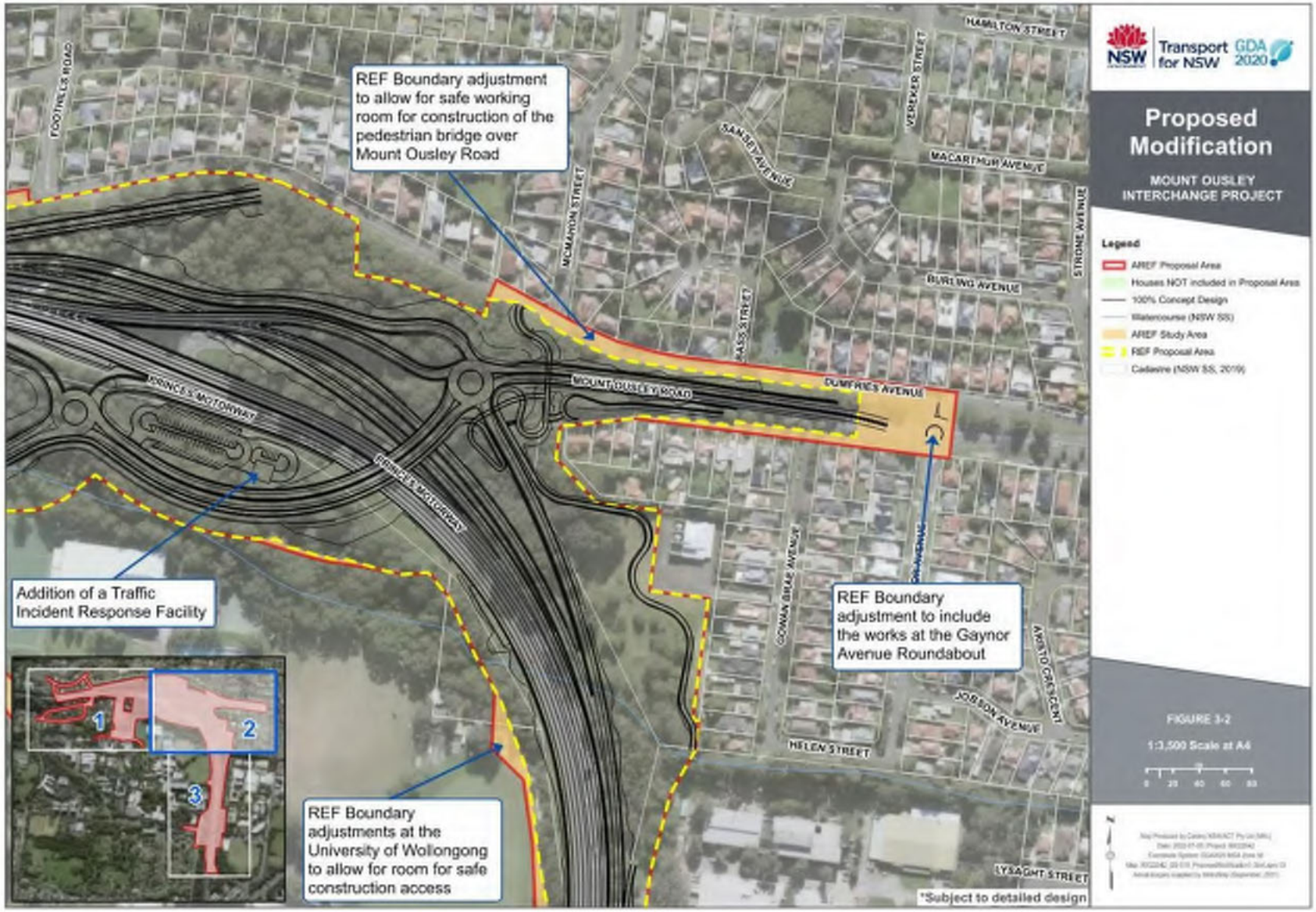


Figure 3-2 Proposed modification central portion

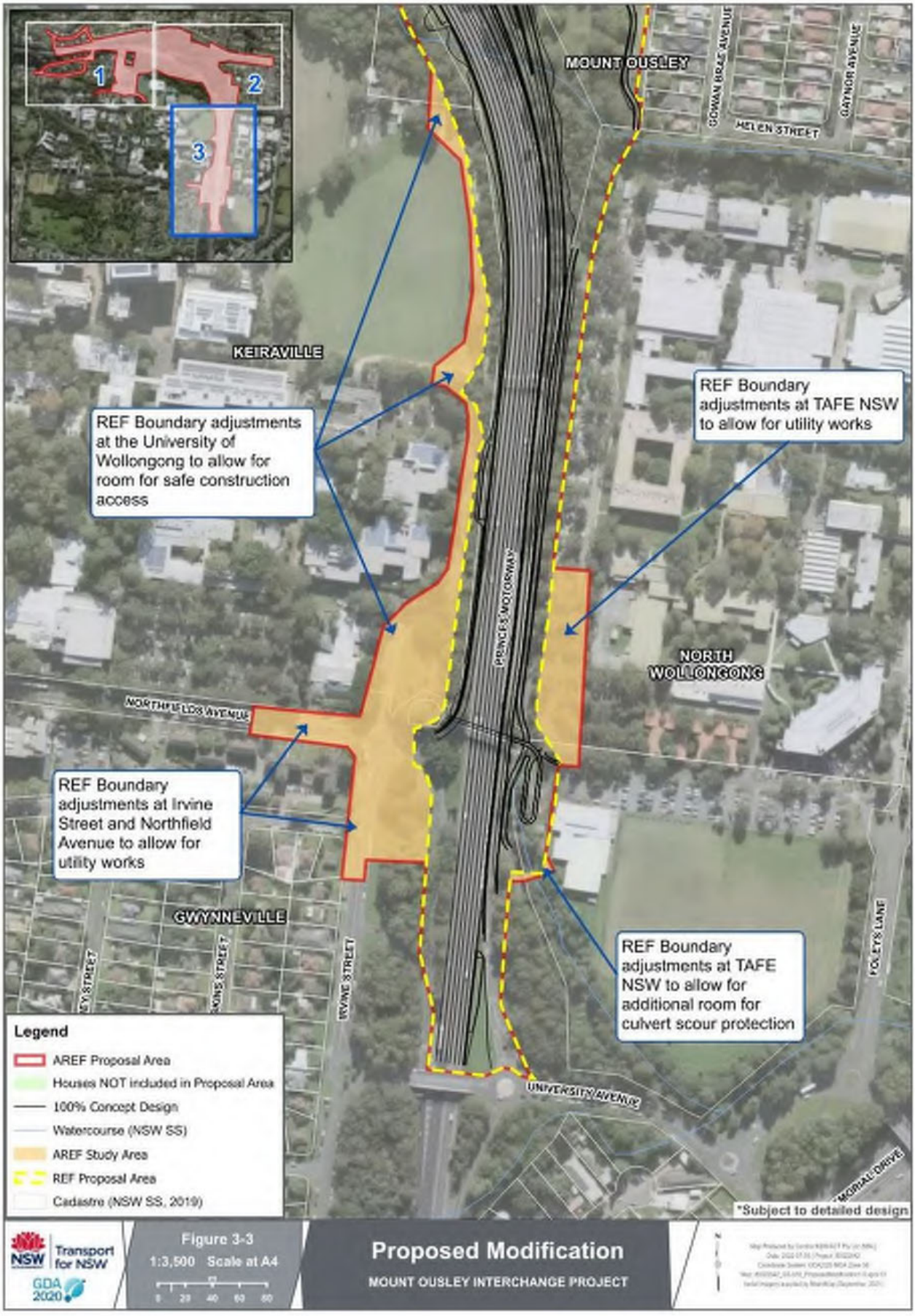


Figure 3-3 Proposed modification southern portion

3.3 Construction activities

3.3.1 Work methodology

The work methodology for construction activities was described in Section 2 of the project REF. The work methodology for all activities considered as part of this proposed modification would be undertaken in the same manner as described in the project REF.

3.3.2 Construction hours and duration

It is considered that the proposed modification would be undertaken in accordance with the construction hours and duration described in Section 2 of the project REF. Works to be undertaken described in this proposed modification would be undertaken primarily during standard construction hours with out of hours work (OOHW) to be undertaken where works cannot be undertaken during daytime hours.

It is anticipated that any evening or night works required for the proposed modification described in this addendum REF would be managed in line with the safeguards and mitigation measures provided in the project REF with no changes proposed as part of this modification.

3.3.3 Plant and equipment

It is considered that the proposed modification would use the same plant and equipment described in Section 2 of the project REF. No additional plant and equipment or changes to the scale or intensity of these items are required for the proposed modification.

3.3.4 Earthworks

Earthworks would be required for the additional utility works. Due to the scale and nature of the utility works, it is unlikely the proposed modification would change the scale and volume of earthworks described in Section 2 of the project REF.

3.3.5 Source and quantity of materials

Due to the scale and nature of the proposed modification, a change in source, scale or volume of materials required to construct the project would be unlikely and remains consistent with Section 2 of the project REF.

3.3.6 Traffic management and access

It is considered that the proposed modification would be undertaken in a manner consistent with traffic management described in Section 3.3.6 of the project REF. The management measures outlined in the project REF are not proposed to be changed as part of this modification.

3.4 Ancillary facilities

The proposed modification would use the same ancillary facilities described in the project REF with the addition of the proposed temporary laydown area in the UOW P5 North carpark. This proposed laydown area would be managed in accordance with the Stockpile Site Management Guideline (Roads and Maritime 2015) as well as the safeguards in the project REF.

3.5 Property acquisition

The properties to be acquired for the proposed modification is consistent with the properties described in section 3.6 of the project REF with exception to amendments in two locations.

Amendments to partial acquisitions of land owned by TAFE NSW (Wollongong Campus) and the UOW. The amount of land to be acquired has been adjusted from the original area listed in the project REF as follows:

- 5426m^2 reduction of land to be acquired at UOW and;
- 1998m^2 increase of land to be acquired at TAFE NSW Wollongong Campus.

The revised land area for the property acquisitions are provided in Table 3-1

Table 3-1: Proposed property acquisition

Area ID	Description & Justification	Total area	Acquisition type	Current owner	Lot and DP	Lad use zone (LEP)
1	Two strips of land adjacent to the M1 Princes Motorway would need to be acquired in order to relocate the high voltage bank of electrical assets and install scour rock outlet protection for a culvert. These are estimated to comprise areas of 3,621 square metres, and 2,210 square metres respectively.	5,649 square metres (approx.)	Required acquisition	TAFE NSW Wollongong Campus	Lot 4 and 5 DP 843929	SP2
2	Three areas of land would need to be acquired from the UOW. These include a relatively large area of land north of the recreational playing fields which comprises approximately 19,813 square metres. Multiple strips of land alongside the M1 Princes Motorway comprising approximately 1,194 square metres and 2,154 square metres	23,161 square metres (approx.)	Required acquisition	The UOW	Lot 1 DP 1188267 and Lot 2 DP 214022	SP2

Area ID	Description & Justification	Total area	Acquisition type	Current owner	Lot and DP	Lad use zone (LEP)
	respectively would also need to be acquired. This land would need to be acquired to accommodate the bridge over the M1 Princes Motorway, associated embankment and retaining wall.					

Figure 3-4 Proposed property acquisition

4 Statutory and planning framework

4.1 Environmental Planning and Assessment Act 1979

4.1.1 Part 5, Division 5.1 of the Act

The proposed modification has been assessed under Part 5 Division 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). A summary of the projects' compliance with the EP&A Act was included in section 4.1 of the project REF. The proposed modification is also compliant with the EP&A Act as described below.

Part 5 of the EP&A Act prescribes circumstances where an activity may be assessed and determined by or on behalf of a determining authority. The proposed modification is consistent with the assessment framework described in the project REF which addresses how the project should be assessed. The key triggers to confirm that all environmental impacts of the project have been properly assessed and that the activity meets the description of infrastructure not requiring approval includes:

- EP&A Act Part 5.1 The proposed modification is the construction of road facilities and upgrades to a road (TfNSW are the Determining Authority).
- EP&A Act Part 5.7 The Determining Authority (TfNSW) has assessed if there are any significant impacts that would require an Environmental Impact Statement (EIS).
- EP&A Act Part 5.10 The assessment of the proposed modification (and project REF) has been undertaken in accordance with section 171 of the Environmental Planning & Assessment Regulations 2021 (with respect to considering the likely impact of the activity onto the environment).

The proposed modification is not likely to have a significant impact on the environment and therefore an EIS is not required. The proposed modification addressed in this addendum REF has been assessed in accordance with Part 5 Division 5.1 of the EP&A Act.

4.1.2 Environmental Planning and Assessment Regulation 2021

The project REF (determined in 2017) was prepared in accordance with Clause 228 of the Environmental Planning and Assessment Regulation 2000. The regulation was repealed on March 1, 2022. A new regulation, the Environmental Planning and Assessment Regulation 2021 (EP&A Regs) came into force on March 1, 2022.

Section 171 of the EP&A Regs specifies the environmental factors to be considered by a determining authority when considering the likely impact of an activity on the environment (and effectively replaces the requirements of Clause 228 of the repealed regulations).

To ensure that the project REF is consistent with the requirements of the new regulations, a review against s171 of the EP&A Regs has considered the project REF as well as the proposed modification as part of this addendum REF. A copy of the s171 checklist has been attached to this addendum REF as an appendix.

4.1.3 State Environmental Planning Policies

State Environmental Planning Policies (SEPPs) are Environmental Planning Instruments (EPIs) under Division 3.3 of the EP&A Act that provide guidance for development activities across the state.

A summary of the SEPPs relevant to the project was provided in section 4.1.2 of the project REF. Since the project REF was determined the structure of SEPPs have changed.

These changes are a consolidation to reduce the total number of SEPPs and does not change the legal effect or the provisions that are included in the existing policies. The SEPPs that are relevant to the proposed modification are discussed below.

State Environmental Planning Policy (Transport and Infrastructure) 2021

State Environmental Planning Policy (Transport and Infrastructure) 2021 (TI SEPP) aims to facilitate the effective delivery of infrastructure, ports and educational establishments across the State.

Section 2.108 of the TI SEPP permits development on any land for the purpose of a road or road infrastructure facilities to be carried out by or on behalf of a public authority without consent.

The proposed TIR Facility meets the definition of road infrastructure facility. Part of the building would be for the purpose of workers amenities and desks. Section 2.108(2) of the TI SEPP permits development for the purpose of administration buildings which are ancillary to and located on the same land as an infrastructure facility.

As the proposed modification is for a road, road infrastructure facilities and ancillary administration buildings and is to be carried out by TfNSW, it can be assessed under Division 5.1 of the EP&A Act. Development consent from council is not required.

The proposal is not located on land reserved under the *National Parks and Wildlife Act 1974* and does not require development consent or approval under the TI SEPP.

Part 2 of TI SEPP contains provisions for public authorities to consult with local councils and other public authorities prior to the commencement of certain types of development.

Consultation, including consultation as required by TI SEPP (where applicable), is discussed in chapter 5 of this addendum REF.

State Environmental Planning Policy (Planning Systems) 2021

State Environmental Planning Policy (Planning Systems) 2021 (PS SEPP) is an amalgamated SEPP which includes provisions for development associated with State and Regional Development, Aboriginal Land and Concurrences and Consents.

Schedule 3, Clause 1 of the PS SEPP prescribes certain circumstances where infrastructure may be declared as State significant (and, in that instance, an Environmental Impact Statement is required). The proposed modification is not State significant infrastructure and does not require assessment under an EIS. The Project has been determined under Division 5.1 of the EP&A Act and is consistent with clause 2.108 of TI SEPP meaning this proposed modification should be assessed as an REF.

State Environmental Planning Policy (Biodiversity and Conservation) 2021

State Environmental Planning Policy (Biodiversity and Conservation) 2021 (BC SEPP) is an amalgamated SEPP which includes provisions for development associated with a number of former SEPPs. Former SEPPs potentially relevant to the proposed modification included in this review include Vegetation in non-rural areas, Koala Habitat, Bushland in urban areas and Sydney drinking water catchment.

A biodiversity assessment supporting the project REF was prepared in 2017. Due to the time period and potential changes in legislation since the assessment, a review was undertaken in conjunction with an assessment of the impacts of the proposed modification. An Addendum Biodiversity Assessment Report (addendum BAR) (Jacobs 2022) and Biodiversity Investigation of Additional Areas report (Cardno 2022) were prepared, the results are summarised in Section 6.1 of this addendum REF.

These two documents have considered the impacts of the project REF and additional impacts associated with the proposed modification and can confirm that the proposal does not trigger any significant matters contained in the BC SEPP. A Species Impact Statement (SIS) or Biodiversity Development Assessment Report (BDAR) are not required.

State Environmental Planning Policy (Resilience and Hazards) 2021

State Environmental Planning Policy (Resilience and Hazards) 2021 (RH SEPP) is an amalgamated SEPP which includes provisions for development associated with a number of former SEPPs. Former SEPPs potentially relevant to the proposed modification included in this review include Coastal management 2018, No. 33 Hazardous and offensive development and No. 55 Remediation of land.

The project REF and proposed modification are not within a Coastal management zone (littoral rainforest or coastal wetland) or considered hazardous or offensive industry. A Preliminary Site Investigation (PSI) has been prepared and discussed in Section 6.2 of this addendum REF to confirm the potential for presence of contaminated material and obligations that may be required by Chapter 4 of the RH SEPP.

4.1.4 Local Environmental Plans

Wollongong Local Environmental Plan 2009

A summary of the Wollongong Local Environmental Plan 2009 (WLEP) was provided in the project REF. The proposed modification is also within the Wollongong LGA. The proposed modification falls within the following land use zones:

- SP2 (Infrastructure)
- R2 (Low Density Residential)
- RE1 (Public Recreation).

The proposed modification is for the purposes of a road. The TI SEPP provides that the proposed modification can be carried out by or on behalf of TfNSW without requiring development consent from Wollongong City Council.

4.2 Environmental Planning Instruments

4.2.1 Illawarra Shoalhaven Regional Plan 2041

The Illawarra Shoalhaven Regional Plan 2041 sets the strategic framework for the region, aiming to protect and enhance the region's assets and plan for a sustainable future. It is a 20-year land use plan prepared in accordance with section 3.3 of the EP&A Act and applies to the local government areas of Wollongong, Shellharbour, Kiama and Shoalhaven.

The plan sets out 30 individual objectives aimed at driving growth and change within the region. These objectives and the broader plan have been developed in collaboration with Local and State Government agencies.

The proposal area of this addendum REF falls within the footprint of the Illawarra Regional Plan (Wollongong Local Government Area) and aligns with the relevant objectives identified in the Plan. These objectives are shown in Table 4-1.

Table 4-1 Illawarra Regional Plan Objectives

Illawarra Regional Plan Objective	Consistency with the Plan
Objective 1: Strengthen Metro Wollongong as a connected, innovative and progressive City	The proposed modification would improve the performance of the existing interchange and provide benefits to the broader network through travel efficiencies and improved reliability.
Objective 27: Protect major freight networks	The proposed modification would improve the performance of the existing interchange and provide benefits to the freight networks between Port Kembla and freight networks north and south along the Princes Motorway.

4.2.2 Wollongong Strategic Planning Statement 2020

Wollongong City Council (WCC) has prepared a Local Strategic Planning Statement to provide a 20-year land use planning vision for the city. It has drawn on many existing local and regional strategies and plans developed, exhibited and adopted by WCC.

The Local Strategic Planning Statement addresses the following criteria to support growth within the Wollongong LGA:

- Jobs and Economic Growth
- Housing for All
- Inclusive and connected communities
- Climate Action and Resilience
- Protect the Natural Environment
- Enabling Infrastructure and Transport
- Key Localities- local strategies, character and visions.

The proposal area of this addendum REF falls within the footprint of the Wollongong Local Strategic Planning Statement (Ward 2) and aligns with the relevant objectives identified in the Plan. These objectives are shown in Table 4-2.

Table 4-2 Wollongong Local Strategic Planning Statement (

Illawarra Regional Plan Objective	Consistency with the Plan
Jobs and Economic Growth	The Project would facilitate employment within the region as well as enable key actions associated with freight and transport corridors to be enhanced.
Housing for All	The Project would improve connectivity in the region and would not impact the key actions identified for housing and future land development.

Illawarra Regional Plan Objective	Consistency with the Plan
Inclusive and connected communities	The Project would improve connectivity in the region through the existing Mt Ousley Interchange and would not impact the key actions identified for inclusiveness and connection of local communities.
Climate Action and Resilience	The Project would improve the reliability of the existing Mount Ousley Interchange while also improving the resilience to the existing Interchange to climate change impacts forecast into the future.
Protect the Natural Environment	The Project would not impact on high value biodiversity of the escarpment lands, connectivity of high conservation vegetation in riparian, coastal wetlands or coastline areas. The REF describes management measures to address impacts to vegetation clearing as part of the project which have been updated as part of this proposed modification.
Enabling Infrastructure and Transport	Mt Ousley Road and the University of Wollongong interchange are referenced in Chapter 7 of the Regional Plan. Improvements to these roads are considered a priority and key actions in section 7.3 of the Regional Plan.
Key Localities- local strategies, character and visions	The Project facilitates the local strategies in the Ward 2 region, particularly driving economic growth and job development in the region. The proposed modification as well as the determined REF would not impact on the implementation of these local strategic objectives.

4.3 Other relevant NSW legislation

4.3.1 Protection of Environment Operations Act 1997

A summary of the *Protection of the Environment Operations Act 1997* (the POEO Act) was provided in section 4.2.1 of the project REF. The proposed modification is expected to trigger the requirement for an Environmental Protection License (EPL) under Schedule 1 of the POEO Act. Scheduled activities that are likely to apply to the proposal include (bold and underline emphasis added to relevant sections below):

35 Road construction

(1) This clause applies to road construction, meaning the following—

(a) the construction of roads (including the widening or rerouting of existing roads) and any related tunnels, earthworks and cuttings,

(b) any extraction of materials necessary for that construction,

(c) any on site processing (including crushing, grinding or separating) of any extracted materials or other materials used in that construction.

(3) The activity to which this clause applies is declared to be a scheduled activity if the activity results in one or more of the following—

(a) the extraction or processing (over the life of the construction) of more than—

(i) 50,000 tonnes of materials in the case of premises in the regulated area or in the local government areas of Bega Valley, Eurobodalla, Goulburn Mulwaree, Queanbeyan-Palerang Regional or Snowy Monaro Regional, or

(ii) 150,000 tonnes of material in any other case,

(b) the existence of 4 or more traffic lanes (other than bicycle lanes or lanes used for entry or exit) for a continuous length of at least—

(i) 1 kilometre—where the road is in a metropolitan area and is classified, or proposed to be classified, as a freeway or tollway under the Roads Act 1993, or

(ii) 3 kilometres—where the road is in a metropolitan area and is classified, or proposed to be classified, as a main road (but not a freeway or tollway) under the Roads Act 1993, or

(iii) 5 kilometres—where the road is not in a metropolitan area and is classified, or proposed to be classified, as a main road, freeway or tollway under the Roads Act 1993.

Based on the extraction and removal of spoil during construction as well as the distance and designation of the road as a "motorway", it is expected that an EPL will be required during construction of the project. Further review of the requirement for an EPL would be undertaken during detailed design to confirm specific criteria triggered by clause 35 of the POEO Act.

4.3.2 Biodiversity Conservation Act 2016

A summary of the *Biodiversity Conservation Act 2016* (BC Act) was included in section 4.2.2 of the project REF. Since the REF was determined, the *Threatened Species Conservation Act 1995* (TSC Act) has been repealed by the BC Act of which is the primary legislation for biodiversity.

An assessment of the biodiversity impact of the proposed modifications, as well as a review of what was assessed in the project REF, have been undertaken in accordance with the BC Act to determine whether a Species Impact Statement (SIS) is required.

The Biodiversity assessment prepared as part of this addendum REF is discussed further in Section 6.1 below.

4.3.3 Heritage Act 1977

A summary of the *Heritage Act 1977* was included in Section 4.2.3 of the project REF with the proposed modification being consistent with this summary. While the proposed modification would not likely impact on items of heritage value, the TfNSW *Standard Management Procedure - Unexpected Heritage Items* would be applied during construction in the event that an unknown or potential archaeological work or relic, including skeletal remains is found.

4.3.4 National Parks and Wildlife Act 1974

A summary of the *National Parks and Wildlife Act 1974* was included in the project REF and is consistent with the proposed modification.

A review was undertaken in support of this addendum REF to include the additional areas associated with changes to the design. No Aboriginal heritage items were identified.

Based on activities which have created disturbance to the site for road construction and associated activities, the potential for unexpected items of Aboriginal heritage or Aboriginal archaeological remains to be present within the proposal area is considered low.

The TfNSW Standard Management Procedure - Unexpected Heritage Items would be followed in the event that an unknown or potential Aboriginal object, including skeletal remains, is found during construction.

4.3.5 Fisheries Management Act 1994

A summary of the FM Act was provided in Section 4.2.6 of the project REF and is consistent with the proposed modification.

The proposed modifications would impact the same first and second order ephemeral drainage lines that were to be impacted by the project. These are tributaries of Fairy Creek and Cabbage Tree Creek which are not defined as key fish habitat. Aquatic habitats and water quality are assessed in detail in Chapter 5 of the REF. Consistent with the findings in the project REF, no permits are required under the FM Act as a result of the proposed modifications.

4.3.6 Water Management Act 2000

TfNSW as a public authority have been granted a general exemption under the *Water Management Act 2000* to utilise water as part of the project for activities associated with construction without the need for a license from Water NSW.

While water use is exempt, due to the proposal area falling within land described in Water Sharing Plans for both the Greater Metropolitan Region (Unregulated River Water Sources and Groundwater Sources 2011), any infrastructure that is installed to withdraw water may be subject to a Water Supply Work Approval.

License requirements for construction would be determined during the detailed design phase of the project in consultation with the DPE Water.

4.3.7 Property Acquisition (Just Terms) Compensation Act 1991

Both the project and the proposed modification would require TfNSW to acquire land to accommodate the proposed works. Land acquisition associated with the proposed modification is discussed further in Section 3.6 of this addendum REF. All land acquisitions would be carried out in accordance with the *Land Acquisition (Just Terms Compensation) Act 1991.*

Acquisitions that are required based on the proposed modification are described in Chapter 3 of this addendum REF.

4.4 Commonwealth legislation

4.4.1 Environment Protection and Biodiversity Conservation Act 1999

A summary of the EPBC Act has been provided in Section 4.3.1 of the project REF. The applicability of the EPBC Act, and the requirements under the Act, have not changed as a result of the proposed modifications.

Two revised assessments (addendum Biodiversity Assessment Report prepared by Jacobs 2022 and letter style update report Biodiversity Investigation of Additional Areas prepared by Cardno 2022) have been undertaken for the whole project and the proposed modification with consideration of actions required under the EPBC Act. The findings of the revised Biodiversity Assessment Report are consistent with the findings described in the project REF.

Potential impacts associated with biodiversity are considered in Section 6.1.

4.5 Confirmation of statutory position

The proposed modification is categorised as development for the purpose of a road and road infrastructure facilities and is being carried out on behalf of a public authority (TfNSW).

Under clause 2.108 of the TI SEPP the proposed modification is permissible without consent. The proposed modification is not State significant infrastructure or State significant development. Therefore the proposed modification has been assessed under Division 5.1 of the EP&A Act as documented in this addendum REF. Consent from Council is not required.

5 Consultation

5.1 Consultation strategy

The consultation strategy for the MOI project is described in section 5.1 of the project REF. The proposed modification would be undertaken in accordance with the consultation strategy described in the project REF with no changes proposed as part of this addendum.

5.2 Consultation outcomes

Educational institutions and government agency consultation undertaken as part of this addendum REF included the following groups:

- TAFE NSW Wollongong campus
- The UOW
- Utilities service providers
- Wollongong City Council (WCC)
- NSW EPA

A summary of the issues raised during consultation on the proposed modification are detailed in Table 5-1 and Table 5-2 below.

Table 5-1: Summary of issues raised by the community

Group	Issue raised	Response / where addressed in addendum REF
TAFE Wollongong campus	Impacts including pedestrian routes, cyclist routers, motorist detours, noise, etc should be considered.	All environmental impacts relevant to the Project will be further investigated during Detailed Design via construction staging development. Mitigation measures to address potential impacts are noted in the REF and this addendum REF.
UOW	Car space impacts: 100 – 120 car spaces loss potentially anticipated. UOW to look at alternative options for loss of car parking spaces.	TfNSW will attempt to minimise car spaces lost during design process where possible via adjustments to drainage etc.
	UOW currently accesses the northern side of the creek behind the hockey fields for maintenance purposes.	Continued access to be considered during construction.
	Foot traffic to be guided to designated crossing points during construction.	TfNSW to consider location options during detailed design.
	Acquisition of land to require consideration of existing footpaths, bike routes and	The above topics will be raised and discussed as the design process progresses and may be the subject

Group	Issue raised	Response / where addressed in addendum REF
	maintenance access to areas around the university.	of independent workshops depending on the required level of detail.

As part of the project REF, TI SEPP consultation with WCC was undertaken on 29 August 2017. A checklist has been included as part of this addendum REF (see appendix B) confirming the consultation requirements for the proposed modification. As the proposed modification does not impact on council assets or propose modifications to land or assets managed by WCC, no formal ISEPP is proposed as part of this addendum REF.

A project update meeting was held with the EPA on the 15 March 2022. The meeting was held to inform the EPA of the proposed modification and discuss EPL requirements.

Issues that have been raised as a result of ongoing consultation with WCC and other government agencies are outlined below in Table 5-2.

Table 5-2: Issues raised through agency consultation

Agency	Issue raised	Response / where addressed in addendum REF
Wollongong City Council	WCC staff aware and understand the project although there have been a number of staff leave council since consultation occurred as part of the original REF.	TfNSW to compile work package of project summary/investigation for WCC review and follow up.
	Shared paths noted to be biggest feedback from community to council, and so is an important asset from the WCC's perspective.	Existing and future assets surrounding the project and associated with the project to form part of ongoing discussions with WCC going forward.
Environmental Protection Authority (EPA)	A review of schedule 1 of the POEO Act to confirm EPL requirement was advised.	Review and outcome provided in section 4.3.1 of this addendum REF.
	Identified noise impacts resulting from OOHW (if required) as a high risk. Requested updates on project and progress of noise mitigation measures and treatments.	TfNSW agreed to provide EPA with relevant updates as the project progresses. Potential noise impacts of the proposed modification and mitigation measures are provided in section 6.4 of this AREF.
	Water quality basins – discharge criteria to be line with the Blue Book. Discharging (if required) would require an EPL.	TfNSW would specify these design requirements in the scope of work and technical criteria (SWTC) and supporting documents to be

		addressed and implemented by the contractor.
	TfNSW to confirm EPL application approach	Outcome provided in section 4.3.1 of this addendum REF.

5.3 Ongoing or future consultation

The stakeholders identified during the development of this addendum REF are consistent with those identified during the consultation which was undertaken during the Project REF. With regards to activities associated with the addendum REF, no changes are proposed to consultation during construction that was originally described in Section 5.6.2 of the project REF. Consultation activities that were proposed in the project REF including the tools and methods described in Section 5.6.2 will remain consistent for works that form the proposed modification.

In addition to the consultation activities described in the Project REF, the addendum REF would be published on the project website in line with the recent legislation changes to section 171(2) of the EP&A Regulation 2021

6 Environmental assessment

This section of the addendum REF provides a detailed description of the potential environmental impacts associated with the construction and operation of the proposed modification of the MOI project. All aspects of the environment potentially impacted upon by the proposed modification are considered. This includes consideration of the factors as required under clause 171 of the Environmental Planning and Assessment Regulation 2021. The factors specified in clause 171 of the Environmental Planning and Assessment Regulation 2021 are also considered in Appendix B.

Site-specific safeguards and management measures are provided to ameliorate the identified potential impacts.

6.1 Biodiversity

The biodiversity impacts of the proposed modification were assessed in an Addendum Biodiversity Assessment Report (addendum BAR) (Jacobs 2022) and Biodiversity Investigation of Additional Areas report (Cardno 2022). These reports can be found in Appendix C and Appendix D, respectively.

The addendum BAR (Jacobs 2022) considered and assessed all features of the proposed modification, with the exclusion of additional footprint for the proposal area within Binda Place, Dallas Street and Northfields Avenue which was identified as being required for utility works following the completion of the addendum BAR (Jacobs 2022).

The Biodiversity Investigation of Additional Areas report (Cardno 2022) considered and assessed the additional footprint for the proposal area in Binda Place, Dallas Street and Northfields Avenue following a review of the 100 per cent concept design.

Based on the findings of these two reports, this addendum REF provides an updated summary of the potential biodiversity impacts from the proposed modification and across the broader project. The updated summary includes:

- Confirmation of the updated biodiversity information and data including species records and listing status
- Changes in legislative requirements
- Revised survey guidelines since the 2016-2017 survey for the BAR (Jacobs 2017) was completed.

In conjunction with the BAR prepared in 2017 by Jacobs, the addendum BAR (Jacobs 2022) outlines the biodiversity values and potential biodiversity impacts of the proposed modification to species, populations and communities and their habitats listed as threatened under the BC Act and the FM Act. Relevant Matters of National Environmental Significance (MNES) are considered listed under the EPBC Act.

In summary, the following additional information was considered:

- Targeted survey of the critically endangered Scrub Turpentine *(Rhodamnia rubescens)* (listed under the BC Act and EPBC Act) to identify and confirm any occurrence of this species in the study area
- A revised assessment to determine the significance of impacts on listed species under the BC Act using the NSW Threatened Species Test of Significance Guidelines and has considered any newly listed species that have potential to occur such as Scrub Turpentine *(Rhodamnia rubescens)* and White-throated Needletail *(Hirundapus caudacutus)*
- Biodiversity values and potential biodiversity impacts from the construction and operation of the proposed modification.

The Biodiversity Investigation of Additional Areas report (Cardno, 2022) assessed the biodiversity values and impacts of additional locations in the proposal area that were not considered in the addendum BAR (Jacobs, 2022) including Binda Place, Dallas Street and Northfields Avenue. The report also considered if the impacts to biodiversity were consistent with those described in the addendum BAR (Jacobs, 2022) and the project REF.

6.1.1 Methodology

Desktop review

A desktop review was undertaken in August 2021 to identify if any new threatened species or ecological communities (threatened biodiversity) had been recorded in the study area since the BAR (Jacobs 2017). The review also considered changes in listing status of previously recorded threatened species, and potential changes to the condition of vegetation/habitat due to climatic conditions such as drought and fire.

The review consulted the following information sources:

- NSW EES BioNet
- NSW DPI Fisheries Spatial Data Portal
- SEED datasets including Biodiversity Values Map and available native vegetation community mapping
- Coastal management areas identified by the State Environmental Planning Policy (Coastal Management) 2018 (Coastal Management SEPP)
- Commonwealth datasets:
    - The DAWE's Protected Matters Search Tool:
    - The Commonwealth Bureau of Meteorology's Atlas of Groundwater
    - National Flying-fox monitoring viewer.

Habitat assessment

The BAR (Jacobs, 2017) habitat assessment was reviewed and updated where applicable to assess the likelihood of threatened biodiversity occurring within the study area. All threatened biodiversity were identified by literature and database searches.

There was no change in the likelihood of occurrence of threatened biodiversity since the BAR (Jacobs 2017). There was a change in listing status for the *Rhodamnia rubescens* (Scrub Turpentine) which has a high likelihood of occurring in the study area and is listed as critically endangered under the BC Act (gazetted 1 February 2019) and critically endangered under the EPBC Act (11 December 2020). This species was not listed as a threatened species at the time of assessment during the project REF.

The review did not consider targeted surveys for any other threatened species necessary. The assessment of previously listed threatened species from the project REF was considered adequate and other newly listed threatened species were considered to have a low likelihood to occur within the study area.

Field survey

Vegetation and habitat survey

No vegetation integrity assessments were conducted in preparing the addendum BAR (Jacobs, 2022), as the previous vegetation survey was considered adequate for the purpose of the assessment.

A site visit and survey for the addendum BAR (Jacobs 2022) was undertaken over one day on 8 February 2022. The survey included rapid data points used to collect additional information focused near the revised design areas regarding dominant plant species,

vegetation types and important habitat features suitable for threatened species. All survey points were undertaken in locations with planted/urban exotic or native trees. Not all locations were able to be inspected due to restricted access between residential houses and the M1 Princes Motorway. The survey routes can be found in Appendix C of the addendum BAR (Jacobs 2022).

Further survey of additional areas for the proposed modification were carried out on 12 April 2022 for the Biodiversity Investigation of Additional Areas report (Cardno 2022). The inspection was informed by the findings of the BAR (Jacobs 2017) and addendum BAR (Jacobs 2022). A Random Meander (RM) and Rapid Biodiversity Assessment (RBA) was conducted to ground-truth vegetation mapping and identify potential habitat in these areas. The locations surveyed can be found in the letter report in Appendix D.

Targeted flora surveys

Rhodamnia rubescens (Scrub Turpentine) has been historically recorded in numerous locations to the west of the study area, as evident in BioNet records.

While this species was not recorded in plots or during other targeted threatened flora surveys in the BAR (Jacobs 2017), the species is associated with mapped PCTs in the study area and therefore additional survey was warranted. It has been noted as uncommon but recorded in a vegetation patch in proximity to the west of the study area on land owned by the UOW.

Consequently, targeted surveys for *Rhodamnia rubescens* (Scrub Turpentine) were undertaken on 8 February 2022 within the study area. The targeted survey followed the NSW survey guide for the Biodiversity Assessment Method: *Surveying threatened plants and their habitats (DPIE, 2020)* to ensure adequate survey effort for *Rhodamnia rubescens* (Scrub Turpentine). The study area was generally comprised of open vegetation (20 m wide transect spacing), with some small patches of dense vegetation (10 m wide) due to *Lantana camara* infestations. Large patches of *Lantana camara* near Gowan Brae Avenue were too dense for walking and *Rhodamnia rubescens* was not searched at this location.

Walked transect searches were conducted in around 10ha of suitable habitat associated with PCT 694 and 1245, the location of the transect searches are illustrated in Figure 6.1. This species is detectable all year and can be surveyed anytime within the survey program. Weather conditions were suitable for detecting *Rhodamnia rubescens* (Scrub Turpentine) following average rainfall during the three months preceding survey.

No targeted threatened flora surveys were undertaken for the Biodiversity Investigation of Additional Areas report (Cardno, 2022) as vegetation mapping did not identify any suitable habitat for the *Rhodamnia rubescens* within the additional locations, which were comprised of roadside and landscape plantings.

Targeted fauna surveys

The fauna surveys that were conducted for the BAR (Jacobs, 2017) were considered adequate and no new fauna species were identified by the desktop review, therefore no further targeted fauna surveys were required.

Opportunistic observations of threatened fauna species and/or their habitat were noted during the field surveys.

Aquatic habitat assessment

The characteristics observed during the aquatic habitat assessment undertaken in the BAR (Jacobs, 2017) remain unchanged and do not match any habitat characteristics of any threatened aquatic species known or predicted to occur within study area.

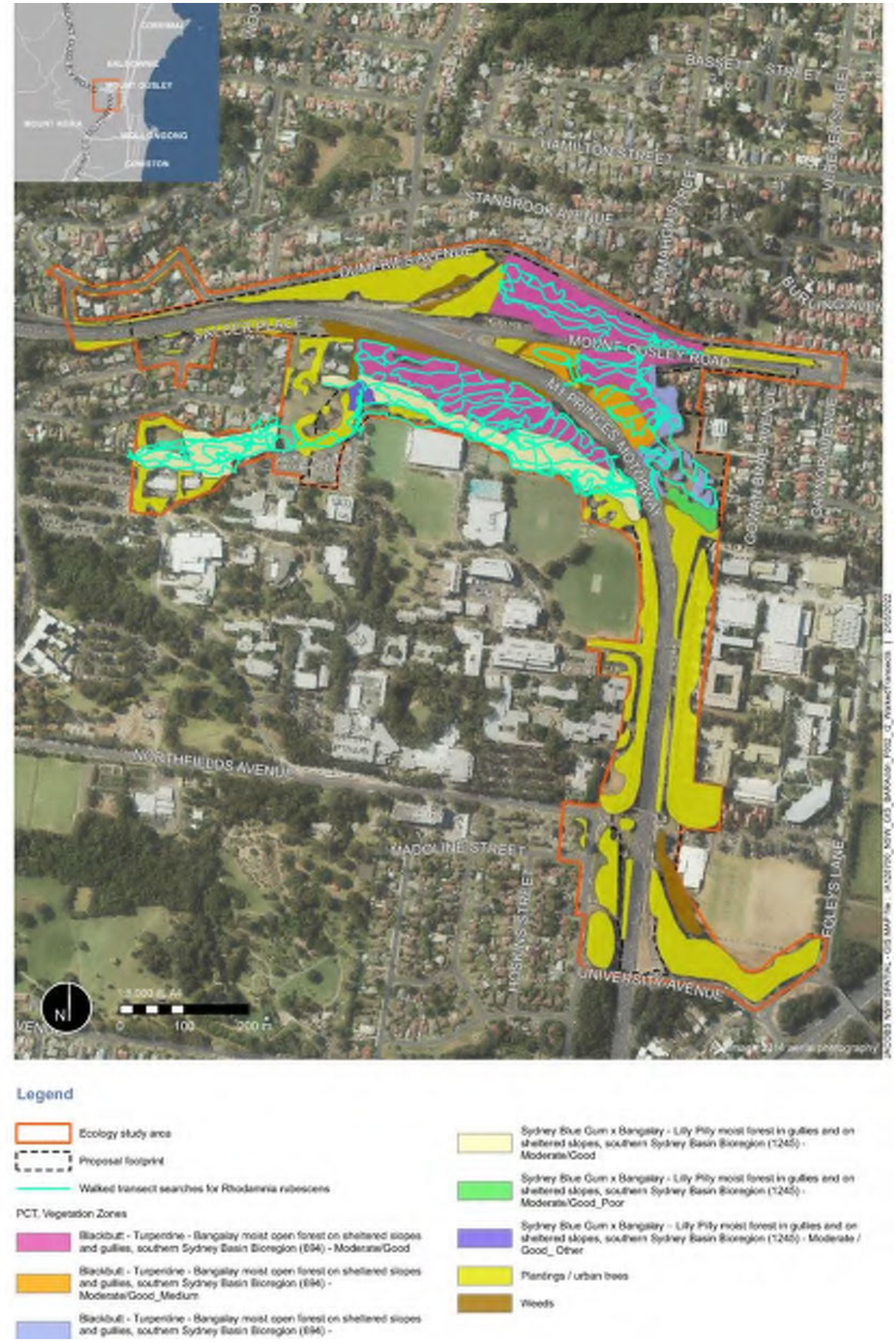


Figure 6-1 Walked transect searches for *Rhodamnia rubescens* (Jacobs 2022)

6.1.2 Existing environment

Native vegetation

No additional native plant community types were identified within the study area for the proposed modification. The areas within the proposed modification are comprised of predominately cleared land with surrounding residential housing and planted/urban trees. Details of the existing biodiversity in the study area are outlined below.

The BAR vegetation survey (Jacobs 2017) identified moderate to good condition Plant Community Types (PCTs):

- Blackbutt - Turpentine - Bangalay moist open forest on sheltered slopes and gullies, southern Sydney Basin Bioregion (694)
- Sydney Blue Gum x Bangalay – Lilly Pilly moist forest in gullies and on sheltered slopes, southern Sydney Basin Bioregion (1245).

No Threatened Ecological Communities (TEC)s were recorded in the study area.

PCT mapping in the BAR (Jacobs 2017) remains valid and was used to assess impacts in the addendum BAR (Jacobs 2022). Only planted vegetation was updated in the study area and comprised an additional 1.03 hectares of roadside and landscape plantings/urban trees. The total area of PCTs in the revised study area comprises 10.46 hectares (see Figure 6.2).

Fauna habitat

There was limited fauna habitat observed within the study area associated with the proposed modification. Planted trees and shrubs provide shelter and refuge for resident and vagrant fauna species, mainly birds. No hollow bearing trees were detected.

Threatened species

No threatened flora and/or fauna species were detected during surveys for the addendum BAR (Jacobs 2022), and the Biodiversity Investigation of Additional Areas report (Cardno 2022). Targeted surveys for *Rhodamnia rubescens* found no individuals within the study area. Discussions with UOW staff during field surveys suggest that the previously known individuals growing near the creek line between Ring Road and Northfields Avenue on University grounds have died due to infection by Myrtle Rust.

Three threatened fauna species were recorded in the study area during the BAR (Jacobs, 2017), including the Grey-headed Flying Fox (*Pteropus poliocephalus*) (listed vulnerable under the BC Act and EPBC Act), Large Bent-winged Bat (*Miniopterus orianae oceanensis*) and Little Bent winged Bat (*Miniopterus australis*) (both listed vulnerable under the BC Act). Habitat for the Grey-headed Flying Fox in the revised study area is foraging only. No roosting camp was observed during the 2017 and 2022 surveys. All PCTs in the study area remain suitable foraging habitat for these three species. No roosting habitat was identified within the study area for these two microbat species during 2017 and 2022 surveys.

Six additional threatened fauna species are considered moderately likely to occur within the study area due to the presence of suitable foraging habitat. These species included:

- Gang-gang Cockatoo (*Callocephalon fimbriatum*; listed vulnerable under the BC Act)
- Varied Sittella (*Daphoenositta chrysoptera*; listed vulnerable under the BC Act)
- Little Lorikeet (*Glossopsitta pusilla*; listed vulnerable under the BC Act)
- Swift Parrot *(Lathamus discolor*; listed endangered under the BC Act and critically endangered under the EPBC Act)
- Powerful Owl *(Ninox strenua*; listed vulnerable under the BC Act)
- Greater Glider (*Petauroides volans*; listed vulnerable under the EPBC Act).

These species are more likely to be associated with the higher quality habitat within the REF study area considered to be commensurate with a PCT. Trees within the proposed modification area may provide marginal foraging habitat for some species however it would only be used intermittently and is not considered a key resource for any of these species.

Aquatic impacts

No aquatic habitats occur within the additional areas for the proposed modification. Impacts of the proposed modification on aquatic habitat remain consistent with those described in the project REF.

Wildlife connectivity corridors

Vegetation and fauna habitat within the areas associated with the proposed modification do not provide important wildlife connectivity. Impacts of the proposed modification on wildlife connectivity remain consistent with those described in the project REF.

Matters of national environmental significance

The BAR (Jacobs 2017) identified one threatened fauna species; the Grey-headed Flying Fox (*Pteropus poliocephalus*), recorded in the study area. The Grey-headed Flying Fox is listed as vulnerable under the EPBC Act and was commonly observed at night flying over and foraging in the habitat in the study area.

All PCTs in the study area are considered to provide suitable foraging habitat for the Grey-headed Flying-fox. Two other EPBC Act listed fauna species, the Swift Parrot and Greater Glider are considered moderately likely to occur based on the presence of suitable habitats. The existing environment in the study area remains consistent with these considerations.

The White-throated Needletail *(Hirundapus caudacutus)* was listed as vulnerable under the EPBC Act since the BAR (Jacobs 2017) was prepared and has a moderate potential of occurring in the revised study area. This species was assessed as a migratory species listed under the EPBC Act in the BAR (Jacobs 2017). An assessment of significance has been completed for this species in Annexure A of the addendum BAR (Jacobs, 2022). The White-throated Needletail *(Hirundapus caudacutus)* is a migrant that does not breed in the locality and is only likely to forage in the aerial spaces above the site. While this species may fly over the revised study area on occasion during seasonal migration it is unlikely to land in the revised study area to utilise as habitat.

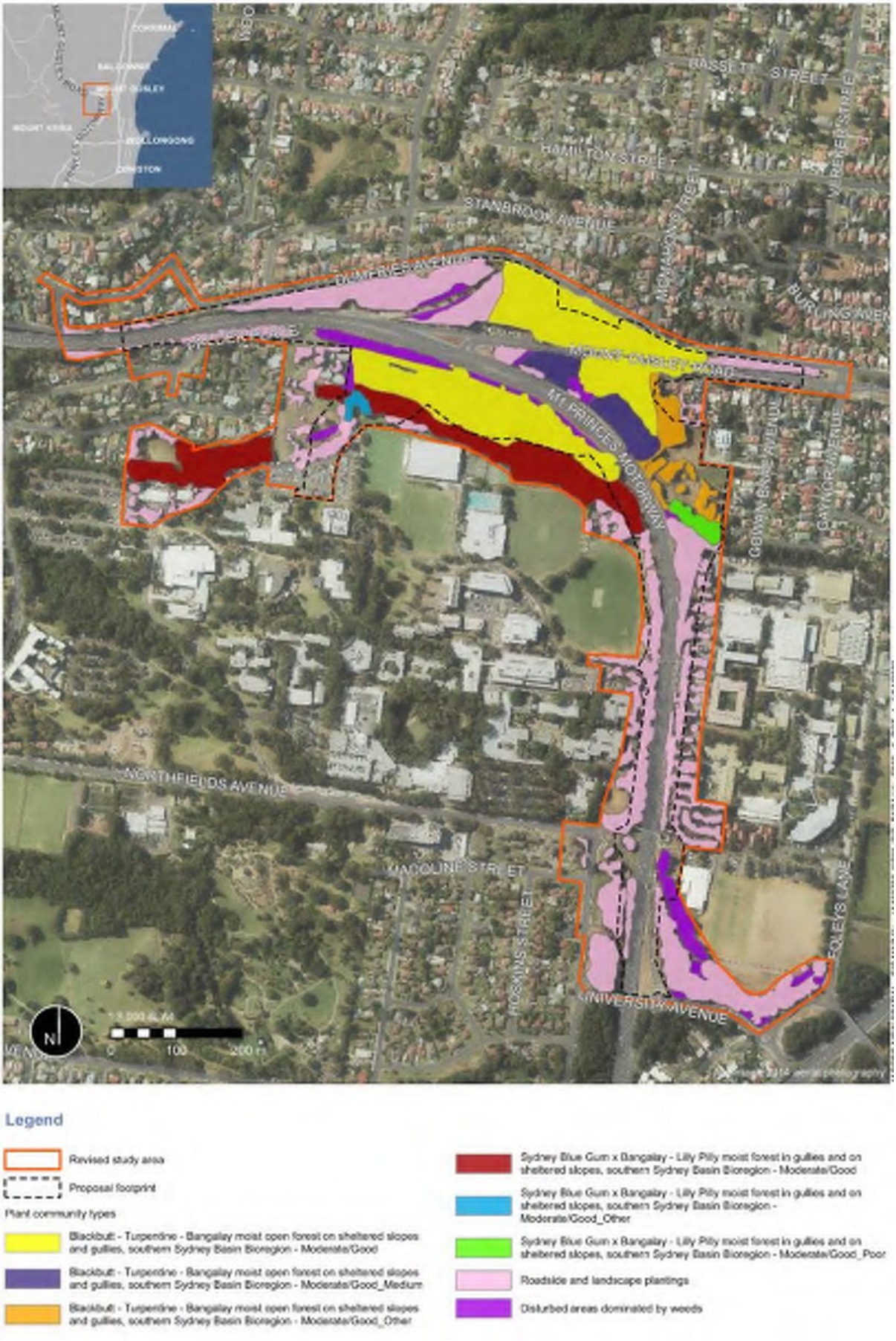


Figure 6-2 Plant community types and other vegetation (Jacobs, 2022)

6.1.3 Potential impacts

Construction

The direct impact associated with vegetation and habitat removal has been calculated using the proposal area for the proposed modification in determining the impacts to biodiversity values.

The total revised impact on native vegetation is around 7.53 hectares. This is a slight reduction of 0.04 hectares in the proposal area since the BAR (Jacobs 2017). There is a slight change of 0.11 hectares between PCT 1245 vegetation zones Moderate / Good_ Poor and Moderate / Good_ Other. This is a result of differences between the project REF proposal area and proposal area for the proposed modification. A breakdown of impacts to PCTs is outlined in Table 6-1.

There is an increase in the loss of Roadside and Landscape plantings, not considered to be commensurate with any Plant Community Type (PCT), of 0.33 hectares for a total impact of 5.38 hectares. Loss of areas dominated by weeds is 0.98 hectares and is consistent with the BAR (Jacobs 2017)

Table 6-1 Impacts to native vegetation within the revised proposal area

Plant community type (PCT)	Condition class	Original 2017 BAR impacts (ha)	Change in impact area compared to project REF (ha)	Revised total impact (ha)
Blackbutt - Turpentine - Bangalay moist open forest on sheltered slopes and gullies, southern Sydney Basin Bioregion (694)	Moderate / Good	5.22	-0.04	5.18
	Moderate / Good_ Medium	0.83	0	0.83
	Moderate / Good_ Other	0.64	0	0.64
Sydney Blue Gum x Bangalay – Lilly Pilly moist forest in gullies and on sheltered slopes, southern Sydney Basin Bioregion (1245)	Moderate / Good	0.55	0	0.55
	Moderate / Good_ Poor	0.22	-0.11	0.11
	Moderate / Good_ Other	0.11	+0.11	0.22
Total native vegetation loss		**7.57**	**-0.04**	**7.53**

Removal of threatened flora

No naturally occurring threatened flora were recorded in the revised study area during the 2017 and 2022 surveys.

The BAR (Jacobs 2017) surveys recorded four individuals of threatened flora species *Syzygium paniculatum* (Magenta Lily Pilly), however during the survey for the addendum BAR a landscape gardener for UOW advised that these individuals were not naturally occurring and were planted in the 1990s.

Removal of threatened fauna

All planted vegetation in urban areas, particularly planted trees that provide nectar, shelter and food resources, may provide marginal habitat to some threatened species. No hollow bearing trees were found in the study area associated with the proposed modification. However, 19 hollow-bearing trees (including dead trees) were identified in the BAR (Jacobs 2017) surveys, and would be removed during construction. No additional hollow bearing trees would be impacted or removed for the proposed modification.

The loss of threatened fauna foraging habitat within the proposal area comprises 7.53 hectares in areas with PCTs, in addition to 5.38 hectares of roadside and landscape plantings, which may provide potential habitat of low importance. This is an increase of potential foraging habitat loss due to the increase of the revised proposal area for proposed modification. The plantings provide additional potential foraging habitat, particularly nectar producing feed trees such as *Eucalyptus spp*, which may be visited by the following threatened fauna species:

- Gang-gang Cockatoo (*Callocephalon fimbriatum*; listed vulnerable under the BC Act)
- Varied Sittella (*Daphoenositta chrysoptera*; listed vulnerable under the BC Act)
- Little Lorikeet (*Glossopsitta pusilla*; listed vulnerable under the BC Act)
- Swift Parrot *(Lathamus discolor*; listed endangered under the BC Act and critically endangered under the EPBC Act)
- Grey-headed Flying Fox (*Pteropus poliocephalus*) (listed vulnerable under the BC Act and EPBC Act),
- Large Bent-winged Bat (*Miniopterus orianae oceanensis*) (listed vulnerable under the BC Act)
- Little Bent winged Bat (*Miniopterus australis*) (listed vulnerable under the BC Act)
- Powerful Owl *(Ninox strenua*; listed vulnerable under the BC Act)
- Greater Glider (*Petauroides volans*; listed vulnerable under the EPBC Act).

Aquatic impacts

No additional aquatic impacts are expected to occur as a result of the proposed modification.

Operation

The nature and extent of the proposed modification does not increase the indirect effects on biodiversity and the operational impacts of the proposed modification remain consistent with what is described in the project REF.

6.1.4 Conclusion on significance of impacts

Revised tests of significance have been conducted for the threatened biodiversity under the BC Act and EPBC Act. The full details of the assessment are provided in Annexure A of the addendum BAR (Jacobs 2022).

The cumulative impact from the project and the proposed modification assessed in this addendum REF are not likely to significantly impact threatened species, populations or ecological communities or their habitats, within the meaning of the BC Act or FM Act and therefore a Species Impact Statement is not required.

The cumulative impact of the project and the proposed modification assessed in this addendum REF are not likely to significantly impact threatened species, populations, ecological communities or migratory species, within the meaning of the EPBC Act.

6.1.5 Safeguards and management measures

No additional safeguards and management measures have been recommended the impacts remain consistent with the project REF. Refer to the project REF section 6.3.4 (Biodiversity) for safeguards and management measures.

6.1.6 Biodiversity offsets

The TfNSW Guideline for Biodiversity Offsets (Roads and Maritime 2016) was used to identify relevant biodiversity offset requirements for the proposed modification. The strategy for biodiversity offsets remains consistent with what is described in the project REF however there is a reduction in the area that is required to be secured as offsets.

The TfNSW offset guideline identifies that a suitable offset option for the loss of 7.53 hectares of threatened fauna ecosystem-credit species habitat would be the provision of an area of suitable habitat on the basis of a 3:1 ratio. This offset option would therefore result in an offset area of 22.59 hectares for threatened fauna species habitat.

This is a 0.15-hectare reduction from the 22.74 hectares proposed in the project REF as the impact on native vegetation is reduced as result of differences between the 80 per cent and 100 per cent concept design.

Offsets are no longer required for planted *Syzygium paniculatum* plants as there is now evidence (see threatened flora above) that these specimens were planted. An option that can be considered during the detailed design to reduce the impact to the *Syzygium paniculatum* plants within the proposal area may be to implement a salvage program. Seed could be harvested from the plants to be removed, grown off site in a nursery, and reused in landscaping required for the proposal. This will retain the genetics of these plants in the habitat and will lead to an overall increase in the size of the local population.

The final offset for the proposal would be determined during detailed design and development of the offset package. During the detailed design phase, the proposal area may change from that assessed in this addendum REF which may result in a different offset requirement than what is presented. The appropriate offset mechanism for final impacts requiring offsets in accordance with the TfNSW policy would be determined following completion of detailed design.

6.2 Topography, geology and soils

Impacts to topography, geology and soils including potential sources of contamination were assessed in Section 6.7 of the project REF. The assessment consisted of a desktop review of online databases. Database searches were carried out in November 2014. Since the project REF, additional areas have been added to the proposal area to allow adequate footprint for the proposed modification.

A Preliminary Site Investigation (PSI) was carried out by Cardno in 2022 to assess potential contamination risks in the proposal area and determine whether further investigation was required. An addendum to the PSI (addendum PSI) was also carried out by Cardno in 2022.

The PSI (Cardno 2022) assessed all features of the proposed modification, with the exclusion of additional footprint for the proposal area within Binda Place, Dallas Street, Northfields Avenue and at UOW which was identified as being required following completion of the PSI.

The addendum PSI (Cardno 2022) assessed the additional footprint for the proposal area in Binda Place, Dallas Street, Northfields Avenue and at the UOW following a review of the 100 per cent concept design. This review identified a further works for utility connections would be required in these locations or additional footprint would be required for construction, which were outside of the study area considered in the PSI.

The PSI (Cardno 2022) and the addendum PSI (Cardno 2022) and can be found in Appendix E and Appendix F, respectively. The reports should be read in conjunction and are summarised below. The study area assessed is shown in Figure 6.3.

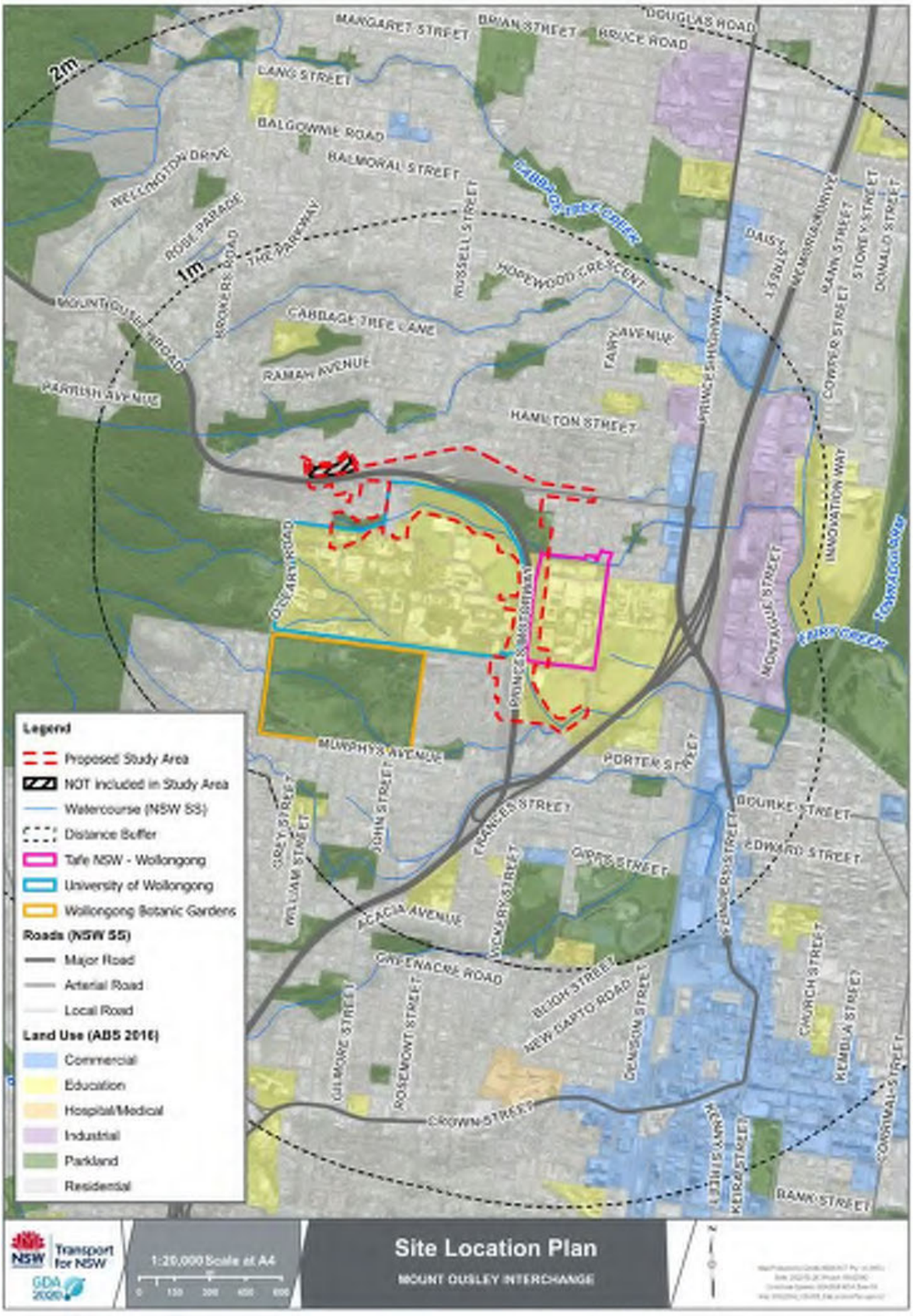


Figure 6-3 Preliminary Site Investigation (PSI) Study Area

6.2.1 Methodology

The methodology for the PSI included:

- A desktop site history review including the following sources:
  - Collection of historic data by LotSearch
  - NSW Environment Protection Authority (EPA) contaminated land public register and the Public Register under Section 308 of the POEO Act 1997
  - Local and regional geology, hydrogeology, topography and hydrology
  - Groundwater data available for the area
  - Historic aerial photographs
  - Current and historic land title information
  - Services and utilities plan review
  - Previous reports with information on the contamination status of the proposal area
  - Motor vehicle accident data as provided by TfNSW
- Two site walkovers by experienced environmental professionals from Cardno to identify potential sources of contamination. These included the following:
  - A site walkover on 24 January 2022 for the PSI (Cardno 2022)
  - A site walkover conducted on 16 June 2022 for the addendum PSI (Cardno 2022)
- Preparation of a PSI report in accordance with the Consultants reporting on contaminated land, Contaminated land guidelines (NSW EPA, 2020) and the National Environment Protection (Assessment of Site Contamination) Measure (NEPC, 2013).

6.2.2 Existing environment

Topography

Overall the topography of the proposal area comprises of steeply sloping land associated with the lower slopes and foothills of the Illawarra Escarpment. The western portion of the proposal area steeply slopes to the east while the eastern and southern portions near TAFE NSW Wollongong are quite level and are associated with the coastal plain. Two unnamed creeks run from east to west through the proposal area. The southern creek is a tributary of Fairy Creek while the northern creek drains to Cabbage Creek which flows into Fairy Creek.

Geology

The proposal area is predominately underlain by Quaternary sediments with elevated areas in the west of the site underlain by the Pheasants Nest Formation of the stratigraphic unit the Illawarra Coal Measures. These are described as:

- *Quaternary sediments* containing quartz and lithic "fluvial" sand, silt, and clay
- *Quaternary sediments* containing talus and unsorted landslide material
- *Pheasants Nest Formation* containing interbedded lithic sandstone, coal, carbonaceous claystone, siltstone, and claystone.

Soils

The proposal area overlays two soil landscape types though the majority is classified as Disturbed Terrain Landscape. Elevated areas in the north-east, north-west and south are

underlain by the Gwynneville Landscape as mapped on Soil Landscapes of Central and Eastern NSW, NSW OEH. (2013). The two landscapes are described below:

- *Disturbed Terrain*: The topography varies from level plains to undulating terrain and has been disturbed by human activity to a depth of at least 100 cm. The original soil has been removed, greatly disturbed or buried. Most of these areas have been levelled to slopes of <5 per cent. Land filling includes soil, rock, building and waste material. The original vegetation has been completely cleared. Limitations are dependent on nature of fill material resulting in a Mass movement hazard (subsidence), soil impermeability leading to poor drainage, low fertility and toxic material.
- *Gwynneville:* The topography of the landscape is characterised by the footslopes of the Illawarra Escarpment and isolated rises of the Wollongong Plain. Local relief is 10 – 70m with slopes 3 – 25 per cent. The landscape has broad to moderately (250 – 850 m) rounded ridges. gently to steeply inclined slopes, structural benches and occasional rock outcrops. Vegetation is extensively cleared tall open forest and open forest.

Soils are shallow (50 – 100 cm) Brown Podzolic Soils and Xanthozems on upper slopes, Lithosols on simple slopes and shallow (<50cm) Brown Earths on mid-slopes and lower slopes. Development limitations within the landscape can include, extreme erosion hazard, steep slopes, mass movement hazard, local flooding, reactive subsoils and impermeable, low wet bearing strength clay subsoil.

Acid sulphate soil (ASS) risk mapping shows that the proposal area is not underlain by areas of acid sulphate soil risk with the closest area of potential ASS risk located approximately 200 m east of the proposal area in the vicinity of the University Ave, Memorial Drive interchange. Bridgement (2017) identifies the Illawarra Coal Measures as high risk for acid sulphate rock (ASR) due to being a formation known to contain ASR.

Contamination

To conduct the assessment for the PSI a conceptual site model (CSM) was developed to assess the risk of contamination affecting human health and the environment. The CSM provides an assessment of the fate and transport of contaminants of potential concern within the context of site-specific subsurface conditions with regard to their potential risk to human health and the environment. Risk to human health and the environment is identified through complete source – pathway – receptor (SPR) linkages. In order to identify SPR linkages the CSM considers site specific factors, including:

- Sources of contamination
- Identification of contaminants of concern associated with past and present sources
- Site specific information including soil types, inferred depth to groundwater, inferred permeability, inferred groundwater flow direction and surface water bodies and interactions
- Location of any identified sources relative to the proposed study area development
- Actual or potential receptors considering both current and future land use both for the proposal area, adjacent properties and any sensitive ecological receptors.

Potential contamination sources and contaminants of concern

The PSI considered the historical land use of the proposal area and observations from the site walkovers conducted on 24 January 2022 and 16 June 2022 to identify potential contamination sources and contaminants of concern. These are summarised in Table 6-2Error! Reference source not found..

Identified potential contamination sources are consistent with the current and recorded site history, while a small number of localised sources have been identified including the Mount Ousley Substation and utilities. A broad risk of potential contamination exists across the site

from filling associated with road construction and unrecorded spills and fires during operation.

Table 6-2 Contamination sources summary

Contamination Source	Description	Contaminants of concern
Buried utilities	Buried utilities have been identified to contain asbestos pipes and pits which may cause impact to surrounding soils if degraded or damaged. In addition to this, utilities may provide a preferential pathway for migration of fluid contaminants due to loose and reworked, soils and gravels.	Asbestos
Historical construction compound	A potential historical construction compound was identified between the M1 Motorway and Mount Ousley Substation in the 1998 historical aerial imagery. The site walkover also identified asphalt and gravel on ground surfaces in this area.	Asbestos, total recoverable hydrocarbons (TRH), benzene, toluene, ethylbenzene, xylene (BTEX), polycyclic aromatic hydrocarbons (PAH), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, general waste, equipment maintenance spills
Chemical and fuel storage – Building 31b	Above ground storage of fuels and chemicals was noted within the Building 31b compound at UOW. Storage appeared to be consistent with best practice, including concrete lined bunds of 2.5x volume for fuel ASTs. Further to this, these structures were identified as being constructed between 2008 and 2016 based on aerial imagery. While long term impact and widespread impact is unlikely these sources have a high potential of causing significant localised impact in the event of a spill.	TRH, BTEX, PAH, Pesticides, VOCs, SVOCs
Mount Ousley Substation	Substation transformers contain significant quantities of oil which historically has contained polychlorinated biphenyls (PCB). In the event of a substantial and uncontrolled spill of these oils there is potential for impacting the site through surface run-off and sub-surface migration	TRH, PCB
Acid sulphate soil / rock	Potential for acid leakage in exposed ASS / ASR in exposed or dewatered soils.	Low pH (acidic) leachate,

Contamination Source	Description	Contaminants of concern
		subsequent metal leachate
Asphalt pavement	There is potential for remnant asphalt pavement layer to contain coal tar. These materials may exist in disused portions of former highway or remain in-situ beneath the current highway at depth (following re-pavement).	PAH, phenol, coal tar
Fluid spills, vehicle fires and general motorway usage.	Impacting roadside verges and downgradient areas, contaminant impact from incidents and their management such as fluid spills and vehicle fires has potential to impact soils and surface waters. Further to this, general high-volume vehicle usage within the site has potential to cause surficial impact to soils and surface waters. Contaminants can include, historical lead-based fuel additives, historical asbestos containing brake pads, low level spills and leakage of vehicle fluids, general wear of tyres and spill / loss of loads.	Asbestos, TRH, BTEX, PAH, metals, PFAS, VOCs, SVOCs, micro-plastics and general waste
Fly-tipping, uncontrolled filling, stockpiling, dam construction, creek line filing, road construction and associated activities	Areas of filling and fly-tipping were observed throughout the alignment and within UoW and TAFE Wollongong lands. While filling through the study area may have been completed with appropriate approvals, no documentation was provided for review for the PSI. Potentially contaminated fill materials may have also been imported to the study area during initial road construction and maintenance activities and could be located in fill, within embankments and at bridge approaches. Evidence of earthworks was noted in lands between Dumfries Ave and the M1 Motorway. Earthworks activities appeared to be associated with the construction of the safety ramp and carpark in this area of the site. The extent to which this is cut, fil or cut to fill was not clear at the time of reporting. Due to the undocumented and/or uncontrolled nature of these activities the potential associated contaminant list is broad.	TRH, BTEX, PAH, VOCs, SVOCs, metals, phenol, organochlorine pesticides (OCP), organophosphate pesticides (OPP), PCB, asbestos.

Potential contamination migration pathways

Potential pathways by which contaminants of concern could migrate towards potential receptors include the following:

- Direct contact
- Incidental ingestion
- Inhalation of vapours or fibres
- Migration via surface water or groundwater.

Potential receptors of concern

Identified receptors for the potential study area contamination include the following:

- Current study area users (including members of the public) and workers who may disturb potentially contaminated materials
- Future study area users and workers who may disturb potentially contaminated materials
- Ecological receptors that depend on soil and waters in potentially impacted areas.

6.2.3 Potential impacts

Construction

Topography and geology

Utility works would require some excavation during construction but the scale and depth of the earthworks is unlikely to affect local geology and the ground surface will also be returned to the exiting ground level so would not result in any long-term changes to topography.

The TIR Facility is proposed to be located within the same footprint as the commuter carpark which is to be constructed upon a large amount of imported fill. The proposed TIR Facility in this location would not alter the surrounding topography and geology further than has been assessed in the project REF.

Amendments to the proposal area may result in some temporary changes to the local topography as the surface in these locations is altered for the construction of temporary access tracks and erosion and sediment controls. These changes would be considered minor in the context of the overall project impacts.

The impacts to topography and geology remain consistent with that described in Section 6.7 of the REF and the changes resulting from the proposed modification are likely to be minor.

Soil and contamination

During construction ground disturbance activities such as earthworks, excavations, piling and under boring could uncover potentially contaminated soils and groundwater. These activities create the potential to complete the exposure pathway between contamination sources and receptors.

The CSM describes how the potential pathways could be completed and provides an assessment of low, medium or high likelihood of this occurring. Of the contaminants of concern identified in the proposal area, none have been assessed as having a high likelihood of completing the exposure pathway. Those with a medium likelihood are listed below.

- Buried utilities have been identified to contain asbestos pipes and pits which may impact surrounding soils if degraded or damaged. Utilities may also provide a preferential pathway for migration of fluid contaminants. Workers could be exposed to asbestos or other contaminants though direct contact or inhalation of fibres if this source is disturbed.
- Acid sulphate soils and rock may be exposed in soils in low-lying areas and where Illawarra Coal Measure formation rock is intersected. If not managed correctly this could create acidic leachate (and subsequent metal leachate) that could potentially migrate via surface water, groundwater and soils and effect biota and humans through direct contact within and outisde the proposal area. It could also affect site structures such as piles and footings through corrosion from leachate.
- Remanent asphalt pavement layers may contain coal tar. These layers may exist in unused portions of former roadway or within layers of the existing roadway. Removal of

pavement via excavation or milling could uncover potential coal tar and expose it to workers by direct contact or if contaminants are mobilised via leaching. Leaching could affect human and ecological receptors down gradient of the proposal area.

- Fluid spills, vehicle fires and general motorway usage may expose workers within the proposal area and also human or ecological receptors down gradient of the proposal area to potential contaminants. The potential contaminants are various and the impacts may be low and broad in the case of contaminants such as brake fluids or localised and high where historical spills or fires may have occurred. Exposure may occur via the pathway of impacted soils, surface water or vapours.
- Fly-tipping, uncontrolled filling, stockpiling, dam construction, creek line filing, road construction and associated activities may be the potential source for various contaminants. This may expose workers in the area, general public using the area for recreation and also ecological receptors to these contaminants via direct contact, ingestion or inhalation from contaminated surface waters or soils. These activities may in particular be associated with site levels in UOW lands such as the P5 carpark, and between Dumfries Avenue and the M1 Motorway.

The CSM which also includes assessment of all likely contaminants including those of low likelihood of exposure can be found in the PSI report and its addendum as shown in Appendix E

Activities during construction have the potential to cause soil contamination from accidental spills of fuels, oils and other hazardous materials such as bitumen. Spillages may result in adverse impacts on soils and on the surrounding environment. Potential impacts on soils include the following:

- Contamination from vehicle wash down areas
- Contamination from the incorrect management of vehicle refuelling
- Contamination from the incorrect storage of fuel, chemical and material storage.

Operation

Topography and geology

The proposed modification would result in some minor temporary changes to topography during construction but it is not predicted to have any impacts in the operational stage. The ground surface disturbed for the utility works, and modification to the proposal area would be returned to the existing surface level following completion of construction. The TIR Facility would not result in any further alterations to topography than is proposed for the commuter carpark which was assessed in the project REF and is not predicted to have any further impacts.

The impacts to topography and geology remain consistent with that described in Section 6.7 of the project REF and the proposed modification is not considered likely to have any impacts during the operational phase.

Soils and contamination

During the operational phase of the project there is potential for hydrocarbon and other contaminants to effect the surrounding environment. This may be the result of the accumulation of chemicals over a period of time on the roadway or as a result of a vehicle crash causing the release of hydrocarbons or chemicals. Three spill containment basins have been proposed in the project REF and the proposed modification does not require re-assessment of this mitigation measure as the proposed modification does not include any changes to the road or stormwater design.

During the operational phase, works may need to be carried out for maintenance or repairs. If ground disturbing activities are carried out then the identified contaminants of concern listed in this addendum AREF may be exposed and come in contact with future workers or the environment. With the current information and without any remediation yet carried out it is considered that the risks to human health and the environment from future works would be the same as risks during the construction phase.

6.2.4 Safeguards and management measures

No additional safeguards and management measures for topography, geology or soils have been recommended and the impacts remain consistent with the project REF. Refer to the project REF section 6.7.4 (Topography, geology and soils) for safeguards and management measures.

6.3 Landscape character and visual impacts

6.3.1 Methodology

An assessment of the landscape and visual impact of the project is described in Section 6.4. of the project REF. The aim of the section below is to describe the potential impacts from the proposed modification and discuss if these impacts are considered to be consistent with those described for the proposal.

6.3.2 Existing environment

The landscape and visual environment surrounding the proposal area is described in detail in Section 6.4 of the project REF. The project REF divides the proposed project site into seven Landscape Character Zones (LCZ) which are shown below in Figure 6.4 . The proposed modification is located in:

LCZ 1 Mount Ousley – North Residential, is located north of the interchange, Mount Ousley is a residential suburb positioned at the foothills of Mount Keira. Residential roads generally have grassed verges and no footpaths and have a highly vegetated character with mature trees contributing to the scenic quality of the suburb. Vegetation in the residential areas is typically a mix of native and exotic species, including informal street tree planting, and mixed tree and shrub plantings within established gardens in private properties

LCZ 3 Vegetation – North of M1 Motorway, is the small residential suburb of Keiraville at the foot of Mount Ousley, situated in a steeply undulating gully between the M1 Princess Motorway and UOW. Mount Keira provides the backdrop to this well-established residential area. Vegetation is mostly limited to mature exotic trees and shrubs within front setbacks of private properties and a dense band of vegetation to the rear of the properties adjacent to the Motorway alignment.

LCZ 4 Vegetation – South of M1 Princes Motorway, is the area lying central to the proposal area and south of the interchange where the M1 Princess Motorway and Mount Ousley Road converge. This zone sits east of LCZ 3 and incorporates heavily forested areas along the northern boundary of UOW. Adjacent to the motorway, vegetation is typically a mix of weeds and exotics. The vegetation provides a visual screen to the UOW between the motorway and areas beyond, establishes a forested natural setting to the northern boundary of the UOW grounds, and contributes to the character and amenity of the surrounding character zones.

LCZ 6 Institutional - University of Wollongong, is the campus of the UOW, and is bounded by the M1 Motorway to the north and east. The campus consists of a variety of multi-storey buildings in a landscape setting within a simple ring road design. There are sport fields, open grassed areas, generous landscaped building setbacks and established

streetscapes. Vegetation is predominantly native tree plantings that provide established screening to surface and multi-storey carparks and campus buildings.

LCZ 7 Institutional - TAFE NSW Wollongong campus , is the Wollongong campus of TAFE NSW, located east of the M1 Motorway corridor and the UOW. The topography of this zone is generally flat. The campus consists of numerous multi-storey buildings arranged in a grid like layout with central courtyards, green spaces and paved pedestrian zones between buildings. Large car parking areas sit along the entire length of the boundaries eastern and western edges of the site. Established vegetation consists predominantly of native tree species, while Mount Keira provides a densely vegetated backdrop to the west.

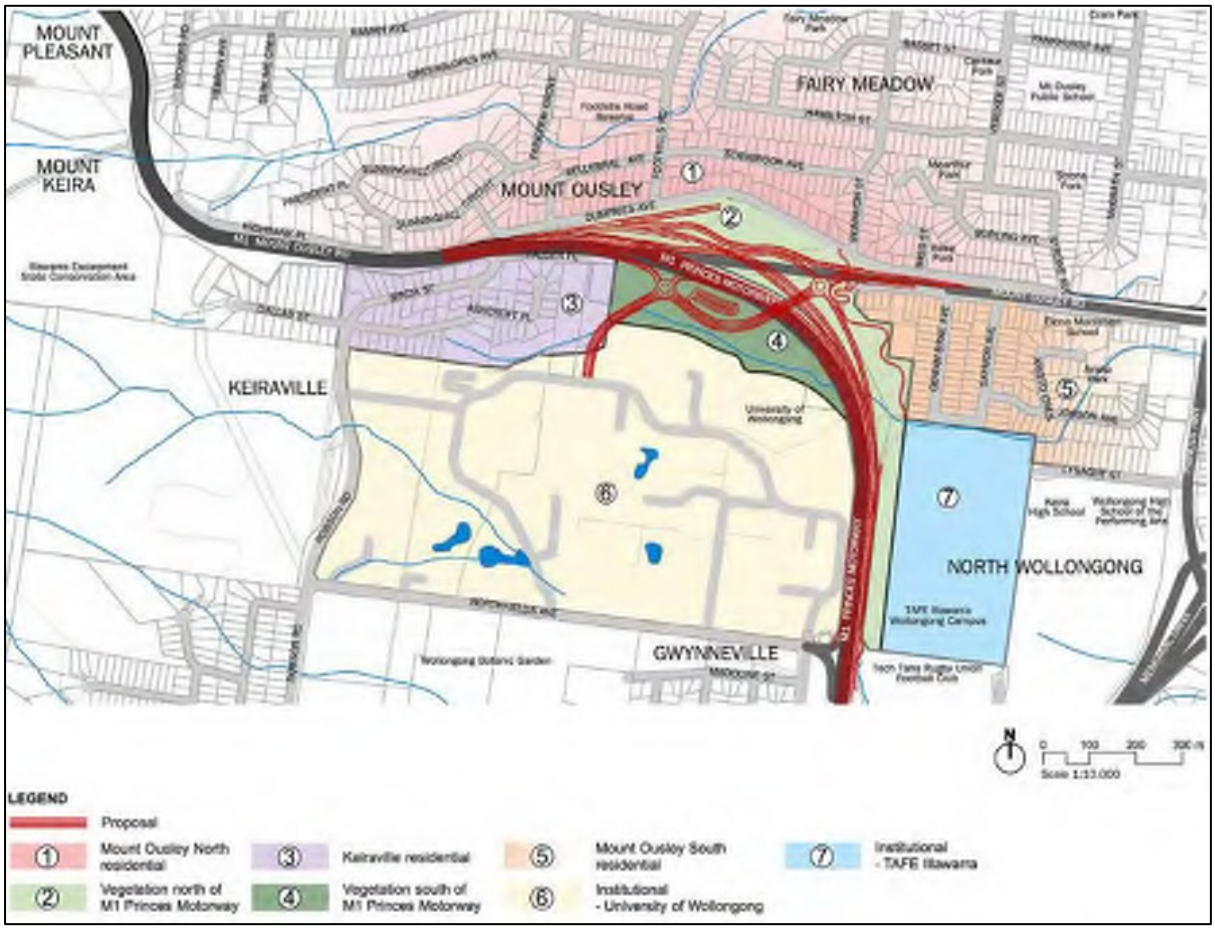


Figure 6-4 Landscape Character Zones (Spackman Mossop Michaels 2017)

6.3.3 Potential impacts

The potential landscape character and visual impacts of the proposed modification would be same during the construction phase and the operational phase, and these impacts would be a result of vegetation clearing. For this reason, the potential impacts from both phases have been combined and are described below.

LCZ 1

The proposed modification includes utility works within LCZ 1. The modification of utility crossings beneath the M1 Princes Motorway requires adjustments to the respective utility networks in Northwood Road, Sunninghill Circuit and Dumfries Avenue. To enable the utility adjustments to be carried out, vegetation clearing may be required within these residential streets.

The loss of vegetation would impact the visual character of the area in the short to medium term and impact it permanently unless compensatory tree planting is undertaken.

Residences in Northwood Road, Sunninghill Circuit and Dumfries Avenue which were previously unaffected by landscape visual impacts would now be affected by the proposed modification.

The assessment of landscape character impact in the Section 6.4.3 of the project REF for LCZ 1 was high-moderate. Due to the loss of vegetation within LCZ 1 from the proposed modification the impact remains high-moderate. However, additional residences to those assessed in the project REF would be impacted.

LCZ 3

Similarly to LCZ 1 the proposed modification includes utility works within LCZ 3.The modification of utility crossings beneath the M1 Princes Motorway requires adjustments to the respective utility networks in Binda Street and Dallas Street. To enable the utility adjustments to be carried out, vegetation clearing may be required within these residential streets. The loss of vegetation would impact the visual character of the area in the short to medium term and impact it permanently unless compensatory tree planting is undertaken. Residences in Dallas Street and Binda Street which were previously unaffected by landscape visual impacts would now be affected by the proposed modification.

The assessment of landscape character impact in the Section 6.4.3 of the project REF for LCZ 3 was high-moderate namely due to the introduction of a noise wall and retaining wall adjacent to the northbound M1 Princes Motorway. Due to the loss of vegetation within LCZ3c required for the proposed modification, the impact remains high-moderate. However, additional residences to those assessed in the project REF would be impacted.

LCZ 4

The proposed modification includes the TIR Facility in LCZ 4. The proposed TIR Facility is to include a single-story building, car parking spaces, and perimeter fencing. The TIR Facility is proposed to be located within the same footprint as the commuter carpark and would not result in any additional vegetation clearing. The TIR Facility would present potential visual impacts for motorists on the M1 Princes Motorway, motorists using the new interchange and any residents with views overlooking the TIR Facility.

The assessment of landscape character impact in the Section 6.4.3 of the project REF for LCZ 4 was high due to the volume of vegetation clearing and inclusion of multiple structures which would result in substantial change to the visual impact to the area. The inclusion of the proposed TIR Facility would unlikely change the overall impact to landscape and visual impact of LCZ 4 however it would create an individual impact that should be considered and mitigated in detailed design. If the TIR Facility is appropriately designed in accordance with the project landscape and visual character objectives described in Section 6.4 of the project REF then the visual impact of the TIR Facility could be mitigated effectively.

LCZ 6

The proposed modification within LCZ 6 includes adjustments to utilities within Northfields Avenue, use of the UOW P5 North Carpark, adjustment to the proposal area within the UOW ring road near Northfields Avenue and adjustment to the proposal area at the intersection with the new access into the UOW from the M1 Princes Motorway. None of the features of the proposed modification would require any additional vegetation clearing or changes to the landscape character of the area.

No further impacts to the landscape character in this area are considered likely due to the proposed modification.

LCZ 7

The proposed modification within LCZ 7 includes a minor adjustment to the proposal boundary to accommodate a proposed utility easement between the Wollongong TAFE NSW campus and the M1 Princes Motorway. Only minor additional vegetation clearing

would be required in this location and the impact to landscape visual character is also likely to be minor.

No further impacts to the landscape character in this area are considered likely due to the proposed modification.

6.3.4 Safeguards and management measures

The impacts of the proposed modification would be managed through implementation of the safeguards and management measures described in Table 7- 1 of this addendum REF. Additional landscape character and visual impact safeguards required for the proposed modification are detailed below.

Table 6-3 Safeguards and management measures for landscape character and visual impact

Impact	Environmental safeguards	Responsibility	Timing
Landscape character and visual impacts	The TIR Facility will be designed in accordance with the project urban design and landscape objectives.	Contractor	Detailed Design
Landscape character and visual impacts	A suitably qualified arborist will be engaged to provide advice on the retention of trees within residential streets potentially affected by utility works.	Contractor	Detailed design / pre-construction
Landscape character and visual impacts	Mature trees potentially affected by the proposed modification will be retained in residential streets (where possible) to maintain the visual character of the area. All trees to be retained should be protected prior to the commencement of construction in accordance with AS4970 the Australian Standard for Protection of Trees on Development Sites and Adjoining Properties.	Contractor	Construction
Landscape character and visual impacts	Compensatory planting of trees will be carried out for trees lost from vegetation clearing for the proposed modification in residential streets.	Contractor	Construction / post construction

6.4 Other impacts

This section of the addendum REF describes environmental factors associated with the proposed modification that have negligible to minor impacts, as described in Table 6-2.

Table 6-4 Existing environment and potential impacts

Environmental factor	Existing environment	Potential impacts
Traffic and transport	The existing environment as it relates to traffic and transport is described in Section 6.1.2 of the project REF. The information discussed in the project REF is considered to be relevant to the proposed modification.	**Construction** Construction of proposed modification may result in some additional temporary traffic impacts to residents on local roads. Utility works would result in construction vehicles accessing Binda Street, Dallas Street, Northwood Avenue, Sunninghill Circuit and Dumfries Avenue. Traffic control may also be required during these activities for the safety of workers, motorists and residents. The traffic and transport impacts of constructing the proposed modification would be temporary and appropriately mitigated with implementation of the safeguards and management measures in section 7. **Operation** Additional impacts to traffic and transport during operation of the proposed modification are not anticipated. The TIR Facility would not result in the loss of any spaces from the commuter carpark and would enable faster response times to traffic incidents in the area creating a positive outcome for motorist safety.
Noise and vibration	The existing environment as it relates to noise and vibration is described in Section 6.2.2 of the project REF. The information discussed in the project REF is considered to be relevant to the proposed modification.	**Construction** During construction the utility works for the proposed modification would result in temporary noise and vibratory impacts for residents on Binda Street, Dallas Street, Northwood Avenue, Sunninghill Circuit, Dumfries Avenue and the immediate surrounding area. The level of impact is likely to

Environmental factor	Existing environment	Potential impacts
		be minor compared to the equipment and construction activities to be carried out for the project in the surrounding area. Works would be carried out during standard working hours following the Interim Construction Noise Guideline (DECC, 2009) (ICNG) and the Roads and Maritime Noise and Vibration Guideline (2016): • Monday to Friday: 7am to 6pm • Saturday: 8am to 1pm • No work would take place on Sundays or on public holidays. If works are required outside of standard working hours the out of hours work procedure developed for the noise and vibration management plan as required in Section 6.2.4 of the project REF would be followed. The other features of the proposed modification would not likely result in more than minor changes to noise impacts during construction. The noise impacts during construction of the proposed modification would be appropriately mitigated with implementation of the safeguards and management measures in Section 7. **Operation** The operation of the TIR Facility would create some operational noise however it is likely to be minor in comparison to the noise impact from the M1 Princes Motorway and the proposed bridge over the M1 Princes Motorway. Locating the TIR facility as proposed in this addendum REF would provide more distance between the TIR Facility and private residences and likely reduce potential operational noise impacts. No vibratory impacts are considered to be likely in the operational phase. The operational impacts associated with the proposed modification are consistent with the potential impacts described in Section 6.2.3 of the project REF and are considered minor.

Environmental factor	Existing environment	Potential impacts
Hydrology and flooding	The existing environment as it relates to flooding and hydrology is described in Section 6.5.2 of the project REF. The information discussed in the project REF is still considered to be relevant to the proposed modification.	**Construction** The potential impacts associated with construction of the proposed modification are considered to be minor and consistent with those described in Section 6.5.3 of the project REF. These impacts would be appropriately mitigated with implementation of the safeguards and management measures in section 7 **Operation** Operation of the proposed modification is not likely to impact flooding and hydrology within the proposal area. The modification to the proposal area, use of the UOW P5 North Carpark and utility works would result in temporary impacts during construction. The ground surface to be disturbed would be returned to the same or similar level following completion of construction. The TIR Facility would be located within the same footprint as the commuter carpark so there is not likely to be a change in the amount of impervious area and hence surface runoff at this location. The potential impacts to hydrology and flooding during operation of the proposed modification are likely to be trivial or minor.
Surface and groundwater	The existing environment as it relates to surface and groundwater is described in Section 6.6.2 of the project REF. The information discussed in the project REF is considered to be relevant to the proposed modification.	**Construction** The proposed modification could affect downstream surface water quality during the construction phase if not adequately managed. The utility works would involve activities such as minor earthworks, trenching and stockpiling which has the potential to mobilise sediments and other introduce other contaminants such oils and greases to surface waters downstream of the proposal area. Dewatering of trenches and excavations during the utility works also have the potential to transport sediments and other contaminants downstream of the proposal area. The modifications to the proposal area would increase the amount of disturbed area during construction which could increase the volume of sediments mobilised during rainfall events. This has the potential to impact

Environmental factor	Existing environment	Potential impacts
		downstream surface waters through increased turbidity, sedimentation, and the introduction of potential contaminants adhering to sediment laden runoff that may leave site. The proposed TRIF would be located within the same footprint as the commuter carpark. The impacts during construction would be consistent with those described in Section 6.6.3 of the project REF. Features of the proposed modification are not located within or adjacent to any watercourses or other sensitive receiving environments. Direct impacts to watercourses are not likely. Groundwater may be affected if the groundwater table is intercepted during utility works. If this is encountered, groundwater may be impacted through contamination of aquifers with sediment, oils and grease. Implementation of safeguards and management measures as described in Section 7, including implementation of appropriate erosion and sediment controls in accordance with The Blue Book – Managing Urban Stormwater (Landcom, 2004) and dewatering in accordance with Roads and Maritime (2011) Technical Guideline – Environmental Management of Construction Site Dewatering, would effectively mitigate the potential impacts to surface water and groundwater during construction. **Operation** It is unlikely that the proposed modification would result in additional or more than minor impacts to surface and groundwater during operation. The TIR Facility would be constructed within the same footprint as the commuter carpark. There would unlikely be a change in contaminant loads (from sediments) generated from impervious surfaces.

Environmental factor	Existing environment	Potential impacts
Property, land use and socio-economic	The existing environment as it relates to property, land use and socio-economic is described in Section 6.8.2 of the project REF. The information discussed in the project REF is considered to be relevant to the proposed modification.	**Construction** Construction of the proposed modification would be carried out largely within residential streets surrounding the proposal. Some additional land within TAFE NSW Wollongong, the UOW and the road corridor would also be utilised for the proposed modification. There is an 1998m^2 increase in the area of property that will be acquired from TAFE NSW Wollongong to accommodate a proposed utility easement while there would be a 5426m^2 decrease in the property acquired from the UOW. Acquisition of private property would not be required for the proposed modification. Access to private properties is not expected to be affected by utility works however if any temporary loss of access to private property is required then this would only take place after consultation with landowner(s) and/or resident(s). The utility works within Dallas Street, Binda Street, Sunninghill Circuit, Northwood Road and Dumfries Avenue would likely result in some temporary loss of amenity to local residents due to dust, noise and traffic generated during construction activities. Similar impacts to land users in educational buildings at UOW and TAFE NSW Wollongong are expected and have been considered in Section 6.8.4 of the project REF. The proposed use of the UOW P5 North carpark as a laydown area would lead to a temporary loss of access to a portion of the carpark to the public, students and staff of the UOW. This would also temporarily reduce the number of carparks available for students and staff at UOW. It is proposed for safety reasons that the portion of the carpark utilised would have the perimeter fenced off and signposted during usage as a temporary laydown area. Fencing would also reduce the visual amenity of the area. Any use of the UOW P5 North carpark during construction would need to be undertaken in consultation with the UOW. The area of the carpark, the number of carparking spaces that would be utilised and the length of time that the carpark would be used would be agreed upon with UOW prior to

Environmental factor	Existing environment	Potential impacts
		construction. The carpark would be rehabilitated to the pre-existing condition or similar, and any damages from construction activities repaired including but not limited to the carpark surface, line marking, signage, lighting and landscaping. Implementation of additional safeguards and management measures from section 6.4.1, and those from section 7 for air quality, noise and traffic would be appropriately mitigate impacts to property, land use and socio-economic environment during construction. **Operation** No further property acquisition is required for the operation of the proposed modification and private property access would not be permanently affected. The TIR Facility would be located in the same area as the commuter carpark. The inclusion of the proposed facility would not alter the number of parking spaces available for the commuter carpark and would not affect the access for vehicles or pedestrians.
Aboriginal heritage	The existing environment as it relates to Aboriginal heritage is described in Section 6.9.2 of the project REF. The information discussed in the project REF is considered to be relevant to the proposed modification. There are no Aboriginal-heritage items listed within the proposed modification area. An extensive search of the Aboriginal Heritage Information Management System (AHIMS) was carried out by TfNSW on 28 January 2022.	**Construction** Stage 1 assessment of the Procedure for Aboriginal Cultural Heritage Consultation and Investigation (PACHCI) was completed by TfNSW on 14 February 2022. The Stage 1 PACHCI assessment found that the proposed modification was unlikely to harm known Aboriginal objects or places. Following the Stage 1 PACHCI assessment carried out in February 2022, additional areas at Dallas St, Binda Place and adjacent to the University of Wollongong P5 Carpark were added to the proposal area. A letter dated 2 April 2022 to inform that the Stage 1 PACHCI assessment had been updated by TfNSW and that the additional areas for the proposed modification were unlikely to cause harm to Aboriginal Objects or places. Please see the Stage 1 PACHCI assessment and letter regarding the update in Appendix G

Environmental factor	Existing environment	Potential impacts
		The proposed modification is unlikely to affect Aboriginal heritage. In the event that an unknown or potential Aboriginal object/s, including skeletal remains, is found during construction then the Standard Management Procedure - Unexpected Heritage Items (Roads and Maritime, 2015) would be followed. The potential impacts of constructing the proposed modification on Aboriginal heritage are consistent with those outlined in the Project REF and would be appropriately mitigated with implementation of the safeguards and management measures in section 7. **Operation** During the operational phase the proposed modification it is not considered likely that Aboriginal heritage would be affected. If future maintenance or repair works are carried out within the proposal area that cause ground disturbance and an unexpected heritage find occurs, the Standard Management Procedure - Unexpected Heritage Items (Roads and Maritime, 2015) should be followed.
Non-Aboriginal heritage	The existing environment as it relates to non-Aboriginal heritage is described in Section 6.10.2 of the project REF. The information discussed in the project REF is considered to be relevant to the proposed modification. There are no heritage items listed within the proposed modification area and there are no newly listed heritage items within the vicinity of the proposal area.	**Construction** As discussed in Section 6.10.3 of the project REF, the proposed modification would be located within the vicinity of non-Aboriginal heritage items. There would be no direct impact on the physical fabric of the items nor encroachment of the heritage curtilage. The potential for previously unrecorded heritage items or archaeological relics to be present within the proposed modification area is considered to be low. In the event that an unexpected find is encountered, the Standard Management Procedure - Unexpected Heritage Items (Roads and Maritime, 2015) would be followed.

Environmental factor	Existing environment	Potential impacts
		The potential impacts of constructing the proposed modification in regard to Non-Aboriginal heritage are consistent with those outlined in the Project REF, and would be appropriately mitigated with implementation of the safeguards and management measures in section 7. **Operation** During operation non-Aboriginal heritage is not likely to be affected by the proposed modification. If future maintenance or repair works are carried out within the proposal area that cause ground disturbance and an unexpected heritage find occurs, the Standard Management Procedure - Unexpected Heritage Items (Roads and Maritime, 2015) should be followed.
Air quality	The existing environment as it relates to air quality is described in Section 6.11.2 of the project REF. The information discussed in the project REF is considered to be relevant for the proposed modification.	**Construction** The proposed modification would have some short-term localised impacts on air quality during construction resulting from the additional utility works, use of the UOW P5 North Carpark as a laydown area, and from minor modifications to the proposal area. Construction activities including excavations, materials handling and storage, and laydown operations have the potential to generate dust and exhaust emissions from diesel plant and equipment affecting nearby receivers. The nature and the scale of impacts on air quality from the proposed modification are consistent with what is described in Section 6.11.3 of the project REF. However, some features for the proposed modification are in closer proximity to receivers including the utility works which are closer to residential receivers, and minor modifications to the proposal area which are in closer to educational buildings at UOW and TAFE NSW. The air quality impacts during construction of the proposed modification are considered minor and consistent with those outlined in the Project REF.

Environmental factor	Existing environment	Potential impacts
		These impacts would be appropriately mitigated with implementation of the safeguards and management measures in section 7. **Operation** No additional operational impacts on air quality are predicted as a result of the proposed modification.
Sustainability and climate Change	The existing environment as it relates to sustainability and climate change is described in Section 6.12.2 of the project REF. the information discussed in the project REF is considered to be relevant to the proposed modification.	**Construction** The proposed modification would not generate a significant increase in greenhouse gas emissions in addition to those described in Section 6.12.3 of the project REF. The proposed modification is also located within the same geographical location so the potential risks from extreme weather events during construction is considered to be the same as described in the project REF. **Operation** The proposed modification would be constructed to the same design criteria and would be located in the same geographical area as the project. It is considered that the proposed modification would not be more susceptible to risks from climate change than described in Section 6.12.3 of the project REF. The sustainability and climate change impacts of the proposed modification are consistent with those outlined in the Project REF and would be appropriately mitigated with implementation of the safeguards and management measures in section 7.
Waste and resource use	The existing environment as it relates to waste and resource use is described in Section 6.13.2 of the project REF. The information discussed in the project REF is considered to be relevant for the proposed modification.	**Construction** The proposed modification would result in the following waste streams: • Green waste from additional cleared vegetation • Road infrastructure materials to be removed or replaced such as redundant utility pipes

Environmental factor	Existing environment	Potential impacts
		• Oils, greases and other liquid wastes from the maintenance generated from maintenance of construction plant and equipment. The waste streams are consistent with those outlined in Section 6.13.3 of the project REF. Some additional spoil would be generated from the utility works however the volume of waste generated is likely to be small in scale when considered against the volume generated from the overall project. The increase in waste generated by the proposed modification is considered minor. The project REF requires a Waste Management Plan (WMP) to be prepared and implemented as part of the CEMP. The waste impacts of the proposed modification are consistent with those outlined in the Project REF and would be appropriately mitigated with implementation of the safeguards and management measures provided in section 7. **Operation** The proposed TIR Facility may generate small volumes of waste. Waste streams may include general waste, commingled recycling and sewage. Oils greases and other liquid wastes may be generated from minor onsite maintenance that may need to be occasionally carried out on vehicles parked at the TIR Facility. It is anticipated that the volumes of wastes produced from the facility would be small in volume and would be appropriately managed and disposed of regularly to a licenced waste facility. Potential operational impacts of the proposed modification would be effectively mitigated through implementation of safeguards and management measures in Section 7.

6.4.1 Safeguards and management measures

The impacts of the proposed modification would be managed through implementation of the safeguards and management measures described in Table 7- 1 of this addendum REF. To manage the impacts listed in Section 6.4 above additional safeguards required for the proposed modification are detailed below.

Table 6-4 Safeguards and management measures for other impacts

Impact	Environmental safeguards	Responsibility	Timing
Property, land use and socio-economic	Access to private properties is not expected to be affected by utility works however if any temporary loss of access to private property is required then this will only take place after consultation with landowner(s) and/or resident(s).	Contractor	Construction
Property, land use and socio-economic	Any use of the UOW P5 North carpark as a temporary laydown area during construction would need to be undertaken in consultation with UOW. The area of the carpark, the number of carparking spaces that would be utilised and the length of time that the carpark would be used for should be agreed upon with UOW prior to the proposed use.	TfNSW/Contractor	Pre-construction / construction
Property, land use and socio-economic	The UOW P5 North carpark, following its use as a temporary laydown area should be rehabilitated to the pre-existing condition or similar prior to its use as a laydown area and any damages from construction activities repaired including but not limited to, the carpark surface, line marking, signage, lighting and landscaping.	Contractor	Pre-construction / construction

6.5 Cumulative impacts

6.5.1 Focus area

The focus area used for the assessment of cumulative impacts has been defined by identifying other developments or activities that are likely to commence during the proposal's scheduled construction timeframe. The project as well as the proposed modification associated with this addendum REF are anticipated to commence in 2023. Construction is expected to be undertaken over a 2.5-year period.

The cumulative impacts inclusive of the proposed modification have been assessed in relation to new and future development, that meets the following criteria:

- New and future significant commercial, industrial and residential development within a 1km radius of the proposal area. This radius is limited to the suburbs of Mount Ousley, North Wollongong, Gwynneville, Keiraville, Mount Pleasant and Fairy Meadow, or
- New and future transport infrastructure development in the region that may impact the proposal area.

Given the construction period for the proposal is likely to begin in 2023, the list of proposed developments within the study area could change after the publication of this addendum REF. A list of projects and development that will likely be carried out concurrent to the proposal have been identified in Section 6.5.2.

6.5.2 Concurrent development

Commercial, industrial and residential local development

University of Wollongong Health and Wellbeing Precinct

On the UOW's immediate agenda is the approval and construction of the Health and Wellbeing Precinct at the Innovation Campus in Fairy Meadow. A development application was submitted to WCC in January 2021 and remains under assessment. The UOW Phase 1 masterplan concept includes a 3.5hectare area, with the project estimated to generate $600 million in economic output. Specifically, the Health and Wellbeing Precinct will consist of a retirement complex of 240 apartments, an aged care facility with 144 beds, a childcare facility, a wellness centre, retail and hospitality venues and sustainability feature throughout.

The construction of the precinct is anticipated to occur concurrently with the construction of the proposal, beginning in 2022 and concluding in 2025.

Public infrastructure development

The *Wollongong City Council Infrastructure Delivery Program for 2021/22 to 2024/25* outlines intended infrastructure improvements throughout the Wollongong region over the three years from 2022. The intended infrastructure to be delivered is largely in the form of upgrades to road/bridges, recreation areas, stormwater management and alternate community facilities.

The planned infrastructure delivery most relevant and likely to impact the proposal is limited to the six previously identified suburbs that surround the proposal area and are anticipated to be constructed in the next three years. Planned infrastructure identified in these six suburbs includes:

Mount Ousley

Road works on Broker's Road and stormwater management on Broker's Road and Dumfries Avenue.

North Wollongong

Road works on Station Street; Flinders Street to Stafford Street, extensive pedestrian access and cycleway works in the immediate and nearby vicinity of Bourke Street.

Gwynneville

Road works on Foley Street, John Street, Moore Street and Murphy's Avenue and repair and upgrade of community facilities and amenities.

Keiraville

Considerable road works throughout the suburb, largely resurfacing, upgrade of the Botanic Gardens, new pedestrian footpaths around Gipps Road and Robson Road and stormwater management works.

Mount Pleasant

No works are currently proposed in this suburb.

Fairy Meadow

Considerable road works throughout the suburb, floodplain management works near Fairy Meadow Park, sports field replacement at North Dalton Park and stormwater management on Cabbage Tree Lane.

There is currently no other significant local known development that is anticipated to be impacted by the proposal.

Transport infrastructure development

Picton Road Upgrade

In November 2020 the state government committed to a plan to upgrade Picton Road between the Wilton Growth Area and M1 Princes Highway. The proposed upgrade is estimated to cost $44 million dollars and will significantly improve access between the regions of Wollongong and Wollondilly by way of adding additional lanes to the road network. The upgrade will improve safety and ease traffic congestion currently plaguing the network.

Currently, the Picton Road Upgrade is in the strategic design phase. It is anticipated that the construction of the Picton upgrade will coincide with that of the MOI Project.

Dapto to Figtree Upgrades

TfNSW are investigating several design options to improve vehicular access between the suburbs of Dapto and Figtree. The design solutions include widening the motorway, upgrading existing ramps, adding new ramps and traffic signals at interchanges and adding variable speed limit signs.

There is potential for the construction timelines of the Dapto to Figtree Upgrades and the MOI Project to coincide.

In accordance with the NSW Governments Princes Highway Upgrade Portal there are no further major road works in close enough proximity to be impacted the proposal.

6.5.3 Potential impacts

Commercial, industrial and residential local development

There is potential for cumulative impacts to occur due to the development of the Wollongong Health and Wellbeing Precinct. This would largely be limited to construction traffic on the local road network. The site for the Wollongong Health and Wellbeing Precinct is well

separated from the proposal area and therefore noise and air quality impacts are not of concern. The likely cumulative impacts of the proposal with the proposed Wollongong Health and Wellbeing Precinct during construction and operation are further considered in Section 6.5.4.

Public infrastructure construction as outlined in the Wollongong City Council Infrastructure Delivery Program for 2021/22 to 2024/25 will coincide with the construction of the proposal. This is anticipated to increase traffic throughout the local road network, increasing noise emissions and air quality impacts. However, the severity of these cumulative impacts will be dependent on the number of local infrastructure improvements constructed at a time and their proximity to the proposal.

In terms of the local residential, commercial and industrial developments proposed in the immediate area, these are small to medium in scale and are not anticipated to be impacted by the proposal. Cumulative effects in construction and operation of the project and the proposed modification are not expected to be significant.

Transport infrastructure development

The Picton Road Upgrade and Dapto to Figtree Road Upgrades are anticipated to have similar construction timeframes to that of the MOI project. Potential cumulative impacts that may arise are largely centred around traffic and transport. The construction of multiple road projects along the Princes Motorway and local road network will cause some disruptions to traffic. Given the distance between each of the intended road upgrades, cumulative air, noise and vibration impacts are not considered likely or significant.

Based on the residential, commercial, infrastructure and industrial projects identified within the vicinity of the proposed modification, the cumulative impacts from these projects is expected to be consistent with the impacts described in the project REF.

6.5.4 Safeguards and management measures

The potential cumulative impacts from the MOI project and concurrent developments are similar in nature and scale to those described in the project REF and the safeguards and management measures proposed in Section 6.14.4 of the project REF remain consistent.

7 Environmental management

7.1 Environmental management plans

A number of safeguards and management measures have been identified to minimise adverse environmental impacts, including social impacts, which could potentially arise as a result of the proposed modification. Should the proposed modification proceed, these management measures would be addressed if required during detailed design and incorporated into the Contractors Environmental Management Plan (CEMP) and applied during the construction and operation of the proposed modification.

7.2 Summary of safeguards and management measures

Environmental safeguards and management measures for the proposed modification are summarised in Table 7-1. Additional safeguards and management measures identified in this addendum REF are included in bold and italicised font. The safeguards and management measures will be incorporated into the detailed design phase of the proposed modification and implemented during construction and operation of the proposed modification, should it proceed. These safeguards and management measures will minimise any potential adverse impacts arising from the proposed works on the surrounding environment.

Table 7-1 Summary of safeguards and management measures

No.	Impact	Environmental safeguards	Responsibility	Timing
GEN1	General - minimise environmental impacts during construction	A CEMP will be prepared and submitted for review and endorsement of the TfNSW Environment Manager prior to commencement of the activity. As a minimum, the CEMP will address the following: • any requirements associated with statutory approvals • details of how the project will implement the identified safeguards outlined in the REF • issue-specific environmental management plans • roles and responsibilities • communication requirements • induction and training requirements • procedures for monitoring and evaluating environmental performance, and for corrective action • reporting requirements and record-keeping • procedures for emergency and incident management • procedures for audit and review. The endorsed CEMP will be implemented during the undertaking of the activity.	Contractor / TfNSW project manager	Pre-construction / detailed design
GEN2	General – notification	All businesses, residential properties and other key stakeholders (eg schools, local councils) affected by the activity will be notified at least five days prior to commencement of the activity.	Contractor / TfNSW project manager	Pre-construction

No.	Impact	Environmental safeguards	Responsibility	Timing
GEN3	General	All personnel working on site will receive training to ensure awareness of environment protection requirements to be implemented during the project. This will include up-front site induction and regular "toolbox" style briefings. Site-specific training will be provided to personnel engaged in activities or areas of higher risk. These include: • threatened species habitat • adjoining residential areas requiring particular noise management measures • traffic management • soil and water management • community interaction. Records of training will be maintained by the contractor, including details of staff attending, dates, nature of training provided, and training provider(s) used.	Contractor / TfNSW project manager	Pre-construction / detailed design
GEN4	General	Standard construction hours: • Monday to Friday 7.00 am to 6.00 pm • Saturdays 8.00 am to 1.00 pm • No construction on Sundays or Public Holidays. Work outside standard construction hours (including those detailed within this REF) will be undertaken in accordance with the management and mitigation measures detailed within the Noise and Vibration Management Plan.	Contractor	Construction
GEN5	General	The final locations and configurations of ancillary facilities will be determined by the contractor in consultation with the TfNSW Environmental representative to confirm the suitability of the locations and whether any additional environmental assessment is required. Stockpile and compound sites will be located and managed in accordance with the TfNSW *Services Stockpile Site Management Guideline* (EMS-TG-10)	Contractor / TfNSW project manager	Pre-construction / detailed design

No.	Impact	Environmental safeguards	Responsibility	Timing
TT1	Traffic and transport	A Traffic Management Plan (TMP) will be prepared and implemented as part of the CEMP. The TMP will be prepared in accordance with the Roads and Maritime *Traffic Control at Work Sites Manual* (RTA, 2010) and *QA Specification G10 Control of Traffic* (Roads and Maritime, 2008). The TMP will (but is not limited to): • Include individual traffic management requirements at each phase of construction • Outline the general principles and procedures for the development of specific construction Traffic Management Plans (CTMPs) • Ensure safe and continuous traffic movement for construction workers and the general public • Maintain the capacity of existing roads where possible • Identify the requirements for temporary speed restrictions where traffic may pose a safety risk to workers • Maintain continuity of access to local roads and properties, particularly along Mount Ousley Road and University Avenue (may require temporary U-turn facilities) • Provide temporary traffic control where necessary • Identify requirements and placement of traffic barriers • Provide appropriate warning and signage for traffic in the vicinity of work areas • Include methods to minimise road user delays such as undertaking work around live traffic including tie-in and bridge work outside of peak periods • Undertake construction activities off-line where possible to minimise the requirement to operate temporary traffic control and reduced speed zones • Develop a communication plan to advise local residents and businesses of any changes to traffic conditions during construction.	Contractor	Detailed design / pre-construction

No.	Impact	Environmental safeguards	Responsibility	Timing
TT2	Traffic and transport	Requirements for any changes to local traffic and access arrangements will be confirmed during detailed design in consultation with TfNSW, Wollongong City Council and any affected landowners, including any temporary alternative access arrangements as required.	Contractor	Detailed design
TT3	Traffic and transport	Pedestrian and cyclist access will be maintained throughout construction in its current location where feasible. Where this is not feasible, temporary alternative access arrangements will be provided	Contractor	Pre-construction
TT4	Traffic and transport	Access for public transport services will be maintained. The requirements for any temporary changes will be confirmed following consultation with local bus operators and the community.	Contractor	Pre-construction
TT5	Traffic and transport	A Local Area Traffic Management Plan will be prepared in consultation with the University of Wollongong, to manage traffic on the internal road network within the University of Wollongong campus.	Contractor	Detailed design / pre-construction
NV1	Noise and vibration	A Noise and Vibration Management Plan (NVMP) will be prepared and implemented as part of the CEMP. The NVMP will generally follow the approach in the *Interim Construction Noise Guideline* (ICNG) (DECC, 2009) and identify: • All potential significant noise and vibration generating activities associated with the activity • Feasible and reasonable mitigation measures to be implemented, taking into account *Beyond the Pavement: urban design policy, process and principles* (Roads and Maritime, 2014). • A monitoring program to assess performance against relevant noise and vibration criteria • Arrangements for consultation with affected neighbours and sensitive receivers, including notification and complaint handling procedures • Contingency measures to be implemented in the event of non-compliance with noise and vibration criteria.	Contractor	Detailed design / pre-construction

No.	Impact	Environmental safeguards	Responsibility	Timing
		In addition to the above, the NVMP will also consider: • Place as much distance as possible between the plant or equipment and residences and other sensitive land uses, particularly at site compounds. • Use of temporary site buildings and materials stockpiles as noise barriers where possible (e.g. on site compounds). • Scheduling construction of any permanent walls so that they can be used as early as possible as noise barriers where possible. • Where practical, scheduling the use of vibration intensive equipment for less sensitive times of the day. • Avoid multiple vibration intensive activities occurring at the same time where possible. • Selection of ancillary sites location shall consider the proximity of the sites to sensitive receivers. Where compounds are close to residences, additional care shall be taken in layout and utilising structures and stockpiles as noise screens. • Where possible, work outside of standard construction hours will be planned so that noisier work is carried out in the earlier part of the evening or night time. • Examining different types of machines that perform the same function and compare the noise level data to select the least noisy machine. For example, rubber wheeled tractors can be less noisy than steel tracked tractors. • Selecting appropriately sized equipment for the task rather than using large equipment when not necessary. • Reducing throttle setting and turn off equipment when not being used.		

No.	Impact	Environmental safeguards	Responsibility	Timing
		• Regularly inspecting and maintaining equipment to ensure it is in good working order. Also check the condition of mufflers. • Where acceptable from a work health and safety perspective, quieter alternatives to reversing alarms (such as spotters, closed circuit television monitors and 'smart' reversing alarms) will be used particularly during out of hours activities. • Noise monitoring will be undertaken to assess compliance with noise management levels (NMLs) and assess the effectiveness of noise mitigation. • All noise complaints will be investigated and appropriate mitigation measures implemented where practicable to minimise further impacts.		
NV2	Noise and vibration	All sensitive receivers (e.g. schools, local residents) likely to be affected will be notified at least five days prior to commencement of any work associated with the activity that may have an adverse noise or vibration impact. The notification will provide details of: • The project • The construction period and construction hours • Contact information for project management staff • Complaint and incident reporting and how to obtain further information.	Contractor	Detailed design / pre-construction
NV3	Noise and vibration	Further assessment of reasonable and feasible operational noise mitigation in the form of noise barriers and at-property treatments will be assessed and determined during detailed design. At-property treatments will be determined and implemented in consultation with impacted property owners.	TfNSW	Detailed design / pre-construction
NV4	Noise and vibration	Where work is required outside standard construction hours, an out of hours work procedure will be developed in accordance with the TfNSW Construction Noise and Vibration Guideline as an appendix to the NVMP. Construction programming will be developed in consultation with TfNSW to minimise noise impacts – this may include agreement on completing	Contractor	Pre-construction

No.	Impact	Environmental safeguards	Responsibility	Timing
		construction in as short a time as possible or implementing time and duration restrictions and respite periods subject to community consultation.		
B1	Biodiversity	A Flora and Fauna Management Plan (FFMP) will be prepared and implemented as part of the CEMP. The FFMP will include the following: • Native vegetation removal will be minimised where reasonably practicable through detailed design. • Pre-clearing surveys will be carried out in accordance with Guide 1: Pre-clearing process of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA, 2011). • Vegetation removal will be carried out in accordance with Guide 4: Clearing of vegetation and removal of bushrock of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA, 2011). • Habitat will be replaced or re-instated in accordance with Guide 5: Re-use of woody debris and bushrock and Guide 8: Nest boxes of the Biodiversity • Native vegetation will be re-established in accordance with Guide 3: Re- establishment of native vegetation of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA, 2011). • The unexpected species find procedure will be followed under *Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects* (RTA, 2011) if threatened ecological communities that have not been assessed in the biodiversity assessment, are identified in the proposal area.	Contractor	Detailed design / pre-construction
B2	Biodiversity	Exclusion zones will be set up at the limit of clearing in accordance with *Guide 2: Exclusion zones* of the *Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects* (RTA, 2011). The unexpected species find procedure is to be followed under *Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects* (RTA 2011) if threatened flora species that have not been assessed in the biodiversity assessment, are identified in the proposal area.	Contractor	During construction / prior to construction

No.	Impact	Environmental safeguards	Responsibility	Timing
		This procedure is important to identify any threatened species that may germinate in disturbed areas during and after construction. Senna acclinis and Solanum celatum may be present as seed in the soil seed bank and as these species are disturbance specialists, the work areas must be monitored to check whether these species germinate in areas of disturbed soil or topsoil stockpiles. An option that can be considered during the detailed design to reduce the impact to the Syzygium paniculatum plants within the proposal area may be to implement a salvage program. Seed could be harvested from the plants to be removed, grown off site in a nursery, and reused in landscaping required for the proposal. This will retain the genetics of these plants in the habitat and will lead to an overall increase in the size of the local population.		
B3	Biodiversity	Aquatic habitat will be protected in accordance with *Guide 10: Aquatic habitats and riparian zones* of the *Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects* (RTA 2011) and Section 3.35.2 *Standard precautions and mitigation measures* of the *Policy and guidelines for fish habitat conservation and management Update 2013* (DPI (Fisheries NSW, 2013).	Contractor	During construction
B4	Biodiversity	Interruptions to water flows associated with groundwater dependent ecosystems will be minimised through detailed design where possible.	Contractor	Detailed design
B5	Biodiversity	Changes to existing surface water flows will be minimised through detailed design where possible.	Contractor	Detailed design
B6	Biodiversity	Fauna will be managed in accordance with *Guide 9: Fauna handling* of the *Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects* (RTA 2011).	Contractor	During construction
B7	Biodiversity	Weed species will be managed in accordance with *Guide 6: Weed management* of the *Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects* (RTA 2011).	Contractor	During construction

No.	Impact	Environmental safeguards	Responsibility	Timing
B8	Biodiversity	Design of roadside edges shall be done in a manner that reduces potential foraging opportunities for deer (ie limit the amount of grassed areas adjacent to the road). TfNSW will work with the South East Local Land Services Northern Illawarra Wild Deer Management program to determine if the proposal area is suitable for pre-clearing deer control.	Contractor / TfNSW project manager	Detailed design
B9	Biodiversity	Pathogens will be managed in accordance with *Guide 2: Exclusion zones* of the *Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects* (RTA 2011).	Contractor	During construction
UD1	Landscape character and visual impact	A UDP will be prepared to support the final detailed project design and implemented as part of the CEMP. The UDP will present an integrated urban design for the project, providing practical detail on the application of design principles and objectives identified in the environmental assessment. The Plan will include design treatments for: • Location and identification of existing vegetation and proposed landscaped areas, including species to be used • Built elements including retaining walls, bridges and noise walls • Pedestrian and cyclist elements including footpath location, paving types and pedestrian crossings • Fixtures such as seating, lighting, fencing and signs • Details of the staging of landscape work taking account of related environmental controls such as erosion and sedimentation controls and drainage • Procedures for monitoring and maintaining landscaped or rehabilitated areas. The UDP will be prepared in accordance with relevant guidelines, including: • Beyond the Pavement urban design policy, process and principles (Roads and Maritime, 2014) • Landscape Guideline (RTA, 2008) • Bridge Aesthetics (Roads and Maritime 2012)	Contractor	Detailed design / pre-construction

No.	Impact	Environmental safeguards	Responsibility	Timing
		• Noise Wall Design Guidelines (RTA, 2006).		
UD2	Landscape character and visual impact	The UDP is to provide details on tree planting with an emphasis on reinstating vegetation character, framing views and providing amenity in public open space.	Contractor	Detailed design
UD3	Landscape character and visual impact	Bridge design is to include throw screens, transparent fences and safety barriers. Opportunities for views from the bridge along the M1 Princes Motorway and toward the Illawarra Escarpment will be maximised.	Contractor	Detailed design
UD4	Landscape character and visual impact	Detailed design solutions to minimise the visual impacts of noise walls will be developed in accordance with the RTA Noise wall design guideline.	Contractor	Detailed design
UD5	Landscape character and visual impact	A consistent design for retaining walls, including surface treatment, colour and detailing will be developed.	Contractor	Detailed design
UD6	Landscape character and visual impact	Project work sites, including construction areas and supporting facilities (such as storage compounds and offices) will be managed to minimise visual impacts, including appropriate fencing or screening (eg use of shade cloth), storage of equipment, parking, stockpile screening and arrangements for the storage and removal of rubbish and waste materials.	Contractor	Construction
UD7	Landscape character and visual impact	Compound and ancillary facilities will be decommissioned and the sites rehabilitated to their existing condition or as otherwise agreed with the landowner on completion of work.	Contractor	Construction
UD8	Landscape character and visual impact	Temporary lighting will be sited and designed to avoid light spill into residential properties and identified sensitive receptors.	Contractor	Construction
UD9	Landscape character and visual impact	Lighting will be designed to minimise light spill into residential properties and sensitive receptors.	Contractor	Detailed design

No.	Impact	Environmental safeguards	Responsibility	Timing
UD10	Landscape character and visual impact	• All reasonable measures shall be taken to minimise the loss of vegetation at and surrounding the interchange, including rationalisation of the requirements for maintenance access • At locations where higher visual impacts have been identified, the specification and planting of more mature sized shrubs and trees shall be adopted to help reduce the visual impact at opening of the road. Further, early planting shall be considered in relation to construction staging to achieve a greater maturity of plants at opening • Management of the natural environment will include rehabilitation of any affected areas of important native habitat and creek embankments; use of endemic vegetation in these and other areas where habitat values are important; during the detailed design phase identify and retain as many mature trees as possible; rehabilitate and replace any lost public uses.	Contractor	Construction
UD11	Landscape character and visual impact	• The number and location of signage and gantries shall be rationalised to avoid visual clutter and ensure that strategic views are not blocked. The location of light posts shall be rationalised to ensure integration with other structures such as retaining walls, noise walls, bridges and pedestrian lighting.	Contractor	Detailed design
UD12	Landscape character and visual impact	The design development of spill containment basins shall aim to achieve a naturalised form and detailing.	Contractor	Detailed design
UD13 (New)	***Landscape character and visual impact***	***The Traffic Incident Response Facility (TIR Facility) will be designed in accordance with the project urban design and landscape objectives. The design will be incorporated into the project Urban Design Plan (UDP).***	Contractor / TfNSW project manager	***Detailed Design***

No.	Impact	Environmental safeguards	Responsibility	Timing
UD14 (New)	***Landscape character and visual impact***	***A suitably qualified arborist will be engaged to provide advice on the retention of trees within residential streets potentially affected by utility works.***	***Contractor***	***Detailed design / pre-construction***
UD15 (New)	***Landscape character and visual impact***	***Mature trees potentially affected by the proposed modification will be retained in residential streets (where possible) to maintain the visual character of the area.*** ***All trees to be retained should be protected prior to the commencement of construction in accordance with AS4970 the Australian Standard for Protection of Trees on Development Sites and Adjoining Properties.***	***Contractor***	***Construction***
UD16 (New)	***Landscape character and visual impact***	***Compensatory planting of trees will be carried out for trees lost from vegetation clearing for the proposed modification in residential streets.***	***Contractor***	***Construction / post construction***
HF1	Hydrology and flooding	Prior to construction commencing, final flood and hydrology assessments will be undertaken to inform detail design measures to minimise risks to the environment, properties and the project.	Contractor	Pre-construction
HF2	Hydrology and flooding	Further flood modelling shall be undertaken at detailed design. Floor level surveys shall be conducted at dwellings subject to increased flood levels during the 1% AEP storm event. This will determine if there is any increase in above floor flooding. No new property floor levels will be subject to inundation in the 1% event as a result of the proposal.	Contractor	Detailed design
HF3	Hydrology and flooding	Debris control structures are to be designed for inclusion at culvert inlets, to minimise blockages and ensure that drainage structures function effectively	Contractor	Detailed design
HF4	Hydrology and flooding	Scour protection measures shall be considered to protect culvert outlets; and at the base of the retaining wall adjacent to the Dallas Street Branch creek.	Contractor	Detailed design

No.	Impact	Environmental safeguards	Responsibility	Timing
SGW1	Surface water and groundwater	A Soil and Water Management Plan (SWMP) will be prepared and implemented as part of the CEMP. The SWMP will: • Identify all reasonably foreseeable risks relating to soil erosion and water pollution and describe how these risks will be addressed during construction. • Specify the requirements for source controls • Identify that any water collected from the worksite during construction will be treated and discharged in accordance with *The Blue Book – Managing Urban Stormwater* (Landcom, 2004) and the Roads and Maritime (2011) *Technical Guideline – Environmental Management of Construction Site Dewatering* • Specify the requirements for source controls (such as sediment fences and bunding of chemical storage areas). Where piling, concreting, earthwork, scour protection or other work is required within or adjacent to a waterway, a silt barrier such as a boom, bund or curtain will be installed either downstream of the work site and/or around the piles prior to the commencement of work.	Contractor	Detailed design / pre-construction
SGW2	Surface water and groundwater	A site specific Erosion and Sediment Control Plan/s (ESCP) will be prepared and implemented as part of the SWMP. The ESCP shall be approved by a registered soil conservationist. The ESCP will include arrangements for managing wet weather events, including monitoring of potential high risk events (such as storms) and specific controls and follow-up measures to be applied in the event of wet weather.	Contractor	Detailed design / pre-construction
SGW3	Surface water and groundwater	An Emergency Spill Plan will be developed and incorporated into the CEMP, which will include measures to avoid spillages of fuels, chemicals, and fluids into any waterways. The storage, handling and use of the materials will be carried out in accordance with the *Occupational Health and Safety Act 2000* and SafeWork NSW's Storage and Handling of Dangerous Goods Code of Practice (Workcover, 2005). Procedures will include:	Contractor	During construction

No.	Impact	Environmental safeguards	Responsibility	Timing
		• All fuels, chemicals, and liquids will be stored at least 50 metres away from any waterways or drainage lines and will be stored in an impervious bunded area within the compound site • Bunded areas for refuelling and washdown • Sediment basins with sufficient storage capacity to capture spills • Spill kits • Training of staff.		
SGW4	Surface water and groundwater	Permanent water quality controls (spill containment basins and swales) will be incorporated into the design.	Contractor	Detailed design
GS1	Geology and soils	The maintenance of established stockpile sites during construction is to be in accordance with the *Roads and Maritime Services Stockpile Site Management Guideline* (EMS-TG-10)	Contractor	Pre-construction/ construction
GS2	Geology and soils	Mulching will be excluded from areas likely to be inundated within the proposal area to reduce the risk of tannins pollution entering waterways.	Contractor	Construction
GS3	Geology and soils	Soil stabilisation will be carried out with materials such as rocks and erosion matting to reduce the risk of tannins pollution entering waterway.	Contractor	Construction
GS4	Geology and soils	Management measures for stockpile sites will be incorporated in the Soil and Water Management Plan (SWMP) and Erosion and Sedimentation Control Plans (ESCPs) and will include the following measures: • Stockpile sites will be located away from overland flow paths and areas of high topography with minimal upstream catchment • Stockpile sites will be maintained in accordance with TfNSW's Stockpile Site Management Procedures (Roads and Maritime, 2001) • The number and size of stockpile sites will be minimised throughout the proposal	Contractor	Construction

No.	Impact	Environmental safeguards	Responsibility	Timing
		• Indicate the stockpile management measures to be implemented if PASS are excavated during piling activities • Vehicle movements will be restricted to designated pathways, where feasible.		
GS5	Geology and soils	If contaminated areas are encountered during construction, a Contaminated Land Management Plan will be prepared in accordance with the *Guideline for the Management of Contamination* (Roads and Maritime, 2013) and implemented as part of the CEMP. All other work that may impact on the contaminated area will cease until the nature and extent of the contamination has been confirmed and any necessary site-specific controls or further actions identified in consultation with the TfNSW Environment Manager and/or EPA. The CLMP will include, but not be limited to: • Capture and management of any surface runoff contaminated by exposure to the contaminated land • Further investigations required to determine the extent, concentration and type of contamination • Management of the remediation and subsequent validation of the contaminated land, including any certification required • Measures to ensure the safety of site personnel and local communities during construction.	Contractor	Detailed design / pre-construction
GS6	Geology and soils	A site specific emergency spill plan will be developed, and include spill management measures in accordance with the TfNSW *Code of Practice for Water Management* (RTA, 1999) and relevant EPA guidelines. The plan will address measures to be implemented in the event of a spill, including initial response and containment, notification of emergency services and relevant authorities (including TfNSW and EPA officers).	Contractor	Detailed design / pre-construction
GS7	Geology and soils	If potentially contaminated materials are suspected and/or encountered during construction, these will be managed by an unexpected finds protocol	Contractor	Construction

No.	Impact	Environmental safeguards	Responsibility	Timing
		incorporated in the CEMP. Disposal of this material will be at an approved waste disposal facility.		
SE1	Socio-economic	All property acquisition will be carried out in accordance with the *Land Acquisition Information Guide* (Roads and Maritime, 2012) and the *Land Acquisition (Just Terms Compensation) Act 1991*.	TfNSW	Pre-construction/ construction
SE2	Socio-economic	A Community and Stakeholder Engagement Plan (CSEP) will be prepared in accordance with the *Community Involvement and Communications Resource Manual* (RTA, 2008), and implemented as part of the CEMP to help provide timely and accurate information to the community during construction. The CSEP will include (as a minimum): • Mechanisms to provide details and timing of proposed activities to affected residents, including changed traffic and access conditions • Contact name and number for complaints. • Consultation with potentially affected residents prior to commencement of and during work in accordance with TfNSW's Community Involvement and Communications Resource Manual. Consultation will include but is not limited to door knocks, newsletters or letterbox drops providing information on the proposed work, working hours and a contact name and number for more information or to register complaints. • Consultation would be undertaken to advise of alternative routes to take during construction. • Consultation with emergency services to ensure adequate emergency vehicle access is provided and maintained at all times for the duration of construction. • Consultation with the community and relevant stakeholders will be undertaken to establish the preferred design for new noise walls.	Contractor	Pre-construction
SE3	Socio-economic	Heavy vehicle access will be limited near schools and child care centres during drop- off and pick-up times.	Contractor	During construction

No.	Impact	Environmental safeguards	Responsibility	Timing
SE4	Socio-economic	The shared path will be designed in accordance with the CPTED principles, including the provision of lighting and maximising passive surveillance. TfNSW will consult with UOW regarding the potential extension of their SafeZone coverage including the provision of CCTV.	Contractor	Detailed design
SE5 (New)	***Socio-economic***	***In the event that works will require temporary access to a private property or closure of access to a private property, consultation must be undertaken with the affected landowner(s) and/or resident(s).***	***Contractor***	***Construction***
SE6 (New)	***Socio-economic***	***Any use of the UOW P5 North car park as a laydown area during construction would need to be undertaken in consultation with UOW. The area of the carpark, the number of carparking spaces that would be utilised and the length of time that the carpark would be used for should be agreed upon with UOW prior to the proposed use.***	***TfNSW/Contractor***	***Pre-construction / construction***
SE7 (New)	***Socio-economic***	***The UOW P5 North carpark, following its use as a laydown area should be rehabilitated to the pre-existing condition or similar prior to its use as a laydown area and any damages from construction activities repaired including but not limited to, the carpark surface, line marking, signage, lighting and landscaping.***	***Contractor***	***Pre-construction / construction***
A1	Aboriginal heritage	The *Standard Management Procedure - Unexpected Heritage Items* (Roads and Maritime, 2015) will be followed in the event that an unknown or potential Aboriginal object/s, including skeletal remains, is found during construction. This applies where TfNSW does not have approval to disturb the object/s or where a specific safeguard for managing the disturbance (apart from the Procedure) is not in place. Work will only re-commence once the requirements of that Procedure have been satisfied.	Contractor	Construction
H1	Non-Aboriginal heritage	The *Standard Management Procedure - Unexpected Heritage Items* (Roads and Maritime, 2015) will be followed in the event that any	Contractor	Construction

No.	Impact	Environmental safeguards	Responsibility	Timing
		unexpected heritage items, archaeological remains or potential relics of Non-Aboriginal origin are encountered. Work will only re-commence once the requirements of that Procedure have been satisfied.		
AQ1	Air quality	An Air Quality Management Plan (AQMP) will be prepared and implemented as part of the CEMP. The AQMP will include, but not be limited to: • Potential sources of air pollution • Air quality management objectives consistent with any relevant Published EPA and/or OEH guidelines • Mitigation and suppression measures to be implemented • Methods to manage work during strong winds or other adverse weather conditions • Methods for management of stored materials and excavated materials which are hazardous and/or exhibit odour • A progressive rehabilitation strategy for exposed surfaces.	Contractor	Detailed design / pre-construction
CC1	Sustainability and climate change	During detailed design and construction, the following measures will be considered and implemented where possible: • Use of LED and low energy equipment for traffic lights and signage • Plant and equipment will be switched off when not in use • Vehicles, plant and construction equipment will be appropriately sized for the task and properly maintained so as to achieve optimum fuel efficiency • The use of alternative fuels and power sources for construction plant and equipment will be investigated and implemented, where appropriate. • Energy efficiency and related carbon emissions will be considered when selecting vehicles and equipment	Contractor	Construction

No.	Impact	Environmental safeguards	Responsibility	Timing
		• Vegetation clearing will be reduced as much as feasible, and re-established in suitable areas when construction is completed • Waste will be reduced and recycled as a preference before disposing to landfill.		
WM1	Waste management	A Resource and Waste Management Plan (RWMP) will be prepared and implemented as part of the CEMP. The RWMP will include the following (as a minimum): • The type, classification and volume of all materials to be generated and used on site including identification of recyclable and non-recyclable waste in accordance with EPA Waste Classification Guidelines • Quantity and classification of excavated material generated as a result of the proposal • Interface strategies for cut and fill on site to ensure re-use where possible • Strategies to 'avoid', 'reduce', 'reuse' and 'recycle' materials. • Classification and disposal strategies for each type of material • Destinations for each resource/waste type either for on-site reuse or recycling, offsite reuse or recycling, or disposal at a licensed waste facility • Details of how material will be stored and treated on-site. • Identification of available recycling facilities on and off site • Identification of suitable methods and routes to transport waste. • Procedures and disposal arrangements for unsuitable excavated material or contaminated material • Site clean-up for each construction stage. • Provision of appropriate garbage and recycling receptacles. Waste which cannot be recycled or reused will be disposed regularly at a licensed waste facility.	Contractor	Construction

No.	Impact	Environmental safeguards	Responsibility	Timing
WM2	Waste management	The following resource management hierarchy principles will be followed through the project life cycle: • Unnecessary resource consumption will be avoided as a priority • Where avoidance is not possible, waste will be processed for resource recovery (including reuse of materials, reprocessing, recycling and energy recovery) • Where resource recovery is not possible, waste will be disposed as a last resort at an appropriately licensed waste facility – in accordance with the Waste Avoidance and Resource Recovery Act 2001 and the EPA waste classification guidelines • Procurement will endeavour to use materials and products with a recycled content, provided that material or product is cost-effective and performance- effective.	Contractor	Detailed design, pre-construction, construction
WM3	Waste management	All waste will be classified according to the Waste Classification Guidelines Part 1: Classifying Waste (EPA, 2014).	Contractor	Construction
CI1	Cumulative impacts	The CEMP will be updated as required to address cumulative impacts as other projects/activities begin. This will include a process to review and update mitigation measures as new work begins or if complaints are received.	Contractor	Pre-construction/ construction

7.3 Licensing and approvals

All relevant licenses, permits, notifications and approvals needed for the Mount Ousley Interchange and when they need to be obtained are listed in Table 7-2. Additional or changed licenses and approval requirements identified in this addendum REF are indicated by underlined and/or struck out font.

Table 7-2 Summary of licensing and approval required

Instrument	Requirement	Timing
***Protection of the Environment Operations Act 1997* (s43)**	Environment protection licence (EPL) for scheduled activities (road construction) from the EPA.	Prior to start of the activity

8 Conclusion

8.1 Justification

The proposed modification would facilitate the construction of the project. The project would improve safety, accessibility and amenity on the M1 Princes Motorway at the base of Mount Ousley, which forms part of the primary road link between Sydney and the Illawarra with average daily traffic of more than 50,000 vehicles per day.

The proposed modification is considered justified as it would facilitate the objectives of the project REF described in Section 2.3. The proposed modification would also achieve the following:

- Provide safe and efficient operation of the construction site by adjustments to the proposal area
- Allow for safe vehicle and plant access during construction by adjustments to the proposal area
- Ensure utility services to local residents are maintained with minimal disruptions to connections resulting from construction of the project
- Reduce the potential impacts to residents in Gowan Brae Avenue by moving the location of the TIR Facility
- Provide safe and practical areas to store construction equipment and materials for the project by the addition of the temporary laydown area in the UOW P5 North carpark.

The impacts of the proposed modification are considered minor and would be avoided, minimised and mitigated with implementation of the safeguards and management measures described in Section 7. The benefits of the proposed modification would outweigh potential impacts. Therefore, the proposed modification is considered justified.

8.2 Objects of the EP&A Act

Table 8-1 has been adapted from Section 8.2 of the project REF. It has been reviewed and updated where required to reflect changes in impacts due to the proposed modification.

Table 8-1 Objects of the EP&A Act

Object	Comment
1.3(a) To promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources.	As outlined within the project REF, the MOI project is required to address traffic congestion issues, road safety and freight transport efficiency. Meeting these needs would help promote the development and growth of Wollongong and the wider Illawarra region. The proposed modification would facilitate the project works which would benefit Wollongong and the wider Illawarra region. The environmental impacts of the

	proposed modification on natural resources is considered low.
1.3(b) To facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment.	The proposed modification is considered to have low impact on ecological values as described in Section 6.1 of this addendum REF.
1.3(c) To promote the orderly and economic use and development of land.	The proposed modification would be constructed within the existing road corridor or within land that would only be used temporarily during construction.
1.3(d) To promote the delivery and maintenance of affordable housing.	Not relevant to the proposed modification.
1.3(e) To protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats.	The proposed modification would not threaten the conservation of any threatened species, native species or ecological communities. Only roadside and landscape plantings would be impacted by the proposed modification.
1.3(f) To promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage).	No heritage items or places have been identified within the area of the proposed modification. Impacts to heritage are not considered likely as a result of the proposed modification.
1.3(g) To promote good design and amenity of the built environment.	The proposed modification has been designed to ensure minimal impacts to amenity including visual impacts.
1.3(h) To promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants.	Buildings to be constructed for the proposed modification are to be subject to detailed design which would ensure the protection of health and safety of the occupants and would be designed in accordance with the relevant standards.
1.3(i) To promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State.	This addendum REF has been developed in accordance with the Part 5.1 Guidelines of the EP&A Act and s171 of the regulation using TfNSW approvals process, thus using the state agency framework and incorporating requirements of local government and federal requirements.
1.3(j) To provide increased opportunity for community participation in environmental planning and assessment.	Consultation for the proposed modification included WCC, the UOW, TAFE NSW Wollongong Campus and the EPA.

	Consultation with the public was not undertaken due to the scope of the proposed modification and the consultation carried out for the REF.

8.3 Ecologically sustainable development

8.3.1 The precautionary principle

This principle states 'if there are threats of serious or irreversible damage, lack of scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation'.

Evaluation and assessment of alternatives for the proposed modification have aimed to reduce the risk of serious and irreversible impacts on the environment. Specialist studies were carried out for key issues to provide accurate and impartial information to assist in the development process.

The proposed modification has sought to minimise impacts where possible. A number of safeguards have been proposed to minimise potential impacts as were described in the project REF. Additional safeguards have been proposed in this addendum REF to minimise the potential impacts of the proposed modification. These safeguards would be implemented during construction and operation of the project. No safeguards have been postponed as a result of lack of scientific certainty.

A CEMP would be prepared before construction starts. This requirement would ensure the project achieves a high-level of environmental performance. No mitigation measures or management mechanisms would be postponed as a result of a lack of information

8.3.2 Intergenerational equity

This principle states, 'the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.

The proposed modification would result in some temporary impacts to local amenity however would not result in any impacts that are likely to adversely impact on the health, diversity or productivity of the environment for future generations. Additionally, some of the features of the proposed modification have been proposed to reduce the potential impacts on the local community by providing a safer and more efficient proposal area to carry out construction.

The proposed modification would benefit future generations by facilitating the construction of the Mount Ousley Interchange ensuring road safety is improved and of benefit for all road users. Should the revised proposal including the proposed modification not proceed, the principle of intergenerational equity may be compromised, as public safety may be affected by future traffic incidents that may occur without the benefits that would occur from construction of the project.

8.3.3 Conservation of biological diversity and ecological integrity

This principle states the 'diversity of genes, species, populations and communities, as well as the ecosystems and habitats to which they belong, must be maintained and improved to ensure their survival'.

The proposed modification would only impact vegetation that is considered roadside or landscape plantings and is not commensurate with any plant community type or habitat

important to threatened species. Further discussion of impacts to biodiversity is given in Section 6.1 however the proposed modification is not considered to have a significant impact on biological diversity and ecological integrity.

8.3.4 Improved valuation, pricing and incentive mechanisms

This principle requires that 'costs to the environment should be factored into the economic costs of a project'.

This addendum REF along with the project REF and submissions report have examined the environmental impacts and benefits of the project and identified safeguards and management measures to mitigate the potential for adverse impacts. The requirement to implement these safeguards and management measures would result in an economic cost to TfNSW. The implementation of safeguards and management measures would increase both the capital and operating costs of the project. This signifies that environmental resources have been given appropriate valuation.

8.4 Conclusion

This addendum REF has examined and taken into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of the proposed activity.

This has included consideration where relevant, of conservation agreements and plans of management under the NPW Act, biodiversity stewardship sites under the BC Act, wilderness areas, areas of outstanding value, impacts on threatened species, populations and ecological communities and their habitats and other protected fauna and native plants. It has also considered potential impacts to matters of national environmental significance listed under the Federal EPBC Act.

A number of potential environmental impacts from the proposed modification have been avoided or reduced during the design development and options assessment. The proposed modification as described in the addendum REF best meets the project objectives, though would still result in some impacts. Safeguards and management measures as detailed in this addendum REF would minimise these expected impacts. The proposed modification would also improve safety for workers and the public and reduce potential impacts on local residents in some areas. On balance the proposed modification is considered justified and the following conclusions are made.

Significance of impact under NSW legislation

The proposed modification would not result in a change to the findings of the project REF and submissions report and would be unlikely to cause a significant impact on the environment. Therefore, it is not necessary for an environmental impact statement to be prepared and approval to be sought from the Minister for Planning and Public Spaces under Division 5.2 of the EP&A Act. A Biodiversity Development Assessment Report or Species Impact Statement is not required. The proposed modification is subject to assessment under Division 5.1 of the EP&A Act. Consent from Council is not required.

Significance of impact under Australian legislation

The proposed modification would not likely cause a significant impact on matters of national environmental significance or the environment of Commonwealth land within the meaning of the EPBC Act. A referral to the Australian Government Department of Agriculture, Water and the Environment is not required.

9 Certification

This addendum review of environmental factors provides a true and fair review of the proposed modification in relation to its potential effects on the environment. It addresses to the fullest extent possible all matters affecting or likely to affect the environment as a result of the proposed modification.

Daniel Lidbetter

Senior Environmental Advisor

Cardno (now Stantec)

Date:13 July 2022

I have examined this addendum review of environmental factors and accept it on behalf of Transport for NSW.

Scott Fayers

Senior Project Manager

Transport for NSW

Date:14 July 2022

10 References

Bridgement, N. (2017). Managing the risks associated with acid sulfate rock. Australian Geomechanics Society, 52(4)

Roads and Maritime Services (2017) *M1 Princes Motorway Mount Ousley Interchange Review of Environmental Factors*

Roads and Maritime Services (2018) *M1 Princes Motorway Mount Ousley Interchange Review of Environmental Factors Submissions Report*

Terms and acronyms used in this addendum REF

Term / Acronym	Description
AusLink	Mechanism to facilitate cooperative transport planning and funding by Commonwealth and state and territory jurisdictions
BAR	Biodiversity Assessment Report
BC Act	*Biodiversity Conservation Act 2016* (NSW).
BC SEPP	Biodiversity Conservation SEPP
CEMP	Construction / Contractor's environmental management plan
EIA	Environmental impact assessment
EP&A Act	Environmental Planning and Assessment Act 1979 (NSW). Provides the legislative framework for land use planning and development assessment in NSW
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth). Provides for the protection of the environment, especially matters of national environmental significance, and provides a national assessment and approvals process.
EPI	Environmental Planning Instrument
EPL	Environmental Protection Licence
ESD	Ecologically sustainable development. Development which uses, conserves and enhances the resources of the community so that ecological processes on which life depends, are maintained and the total quality of life, now and in the future, can be increased
FM Act	*Fisheries Management Act 1994* (NSW)
Heritage Act	*Heritage Act 1977* (NSW)
ISEPP	State Environmental Planning Policy (Infrastructure) 2007
ILALC	Illawarra Local Aboriginal Land Council
LALC	Local Aboriginal Land Council
LEP	Local Environmental Plan. A type of planning instrument made under Part 3 of the EP&A Act.
LoS	Level of Service. A qualitative measure describing operational conditions within a traffic stream and their perception by motorists and/or passengers.
MOI	Mount Ousley Interchange (project)
NES	Matters of national environmental significance under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.
NPW Act	*National Parks and Wildlife Act 1974* (NSW)

Term / Acronym	Description
OOHW	Out of Hours Work
PACHCI	Procedure for Aboriginal Cultural Heritage Consultation
PCT	Plant Community Type
PSI	Preliminary Site Investigation
PS SEPP	Planning Systems SEPP
Project REF	Mount Ousley Interchange REF, Roads and Maritime 2017
QA Specifications	Specifications developed by Roads and Maritime Services for use with road work and bridge work contracts let by Transport for NSW.
RBA	Rapid Biodiversity Assessment
REF	Review of Environmental Factors
RH SEPP	Resilience and Hazards SEPP
RM	Random Meander
Roads and Maritime	NSW Roads and Maritime was dissolved by the Transport Administration Amendment Bill in August 2019, all functions are now managed by Transport for NSW
SEPP	State Environmental Planning Policy. A type of planning instrument made under Part 3 of the EP&A Act.
SEPP 14	State Environmental Planning Policy No.14 – Coastal Wetlands
TfNSW	Transport for NSW
TI SEPP	Transport and Infrastructure SEPP
TIR Facility	Traffic Incident Response Facility
TSC Act	*Threatened Species Conservation Act 1995* (NSW)
UOW	University of Wollongong
WCC	Wollongong City Council

Appendix A

Consideration of clause 171 factors and matters of National Environmental Significance and Commonwealth land

Clause 171 Checklist

In addition to the requirements of the Part 5.1 Environmental Assessment Guidelines 2022 (EP&A Act 2022) as detailed in the addendum REF, the following factors, listed in clause 171 of the Environmental Planning and Assessment Regulation 2021, have also been considered to assess the likely impacts of the proposed modification on the natural and built environment.

Clause	Factor	Impact
S171(a)	<u>The environmental impact on the community</u> The proposed modification involves some impact on the community during construction, including noise and vibration impacts, generation of airborne dust, temporary changes to traffic and access, and visual amenity impacts. In the long term the proposed modification would result in improvements to utilities infrastructure, improvements to traffic efficiency and road safety, as well as improved facilities for traffic incident respondents. The proposed modification will increase on the proposed project development footprint described in the project REF, and would result in permanent changes to the visual environment and the overall landscape within the proposal area. However, these changes would be considered minor in comparison to the changes proposed in the project REF.	Short term – negative Long term – positive Long term – neutral
S171(b)	<u>The transformation of the locality</u> The proposed modification area would undergo temporary transformation during construction due to clearing of vegetation and earthworks required to upgrade the existing utilities infrastructure and the construction of the incident response facility adjacent to the commuter carpark. The proposed modification will introduce a number of changes to the locality including the removal of vegetation, acquisition of land and introduction of an emergency TIR Facility. Compensatory landscape planting will be introduced for the loss of vegetation as a result of the proposed modification.	Short term – negative Long term – neutral
S171(c)	<u>The environmental impact on the ecosystems of the locality</u> The proposed works associated with the project REF would result in clearing 7.57 hectares of native vegetation. The works associated with the modification reduce the amount of native vegetation to be cleared by 0.04 hectares, which would result in the clearing of 7.53	Long term – neutral

Clause	Factor	Impact
	hectares of native vegetation for the combined proposed modification and project works. The two PCTs that would be cleared are: • 6.65 hectares of Blackbutt - Turpentine - Bangalay moist open forest on sheltered slopes and gullies, southern Sydney Basin Bioregion (PCT 694) • 0.88 hectares of Sydney Blue Gum x Bangalay – Lilly Pilly moist forest in gullies and on sheltered slopes, southern Sydney Basin Bioregion (PCT 1245) The existing ecosystems are subject to a high level of disturbance, and the modification would have no long-term impacts to the locality. An offset strategy has been outlined in Section 6.1 of this addendum REF and is consistent with the strategy outlined in the project REF. The modification would have no long-term impacts on any aquatic ecosystems, habitats or species.	
S171(d)	<u>Reduction of the aesthetic, recreational, scientific or other environmental quality or value of the locality</u> The removal of some trees in the road verge would impact on views of mature vegetation. This would be mitigated through landscape planting that would happen as part of the proposed project works. Construction works may impact on the flow of traffic to the surrounding area of the proposed modification, however, this will be temporary in nature and traffic will flow more efficiently once the project is operational.	Medium term – negative Short term – negative Long term – positive
S171(e)	<u>The effects on a locality, place or building that has –</u> • Aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance, or The proposed modification would not impact on any known anthropological, archaeological, architectural, cultural, historical, scientific or socially significant items. • Other special value for present or future generations The proposed modification works will not impact on any other items of special value for present or future generations.	Nil Nil
S171(f)	<u>The impact on the habitat of protected animals within the meaning of the *Biodiversity Conservation Act 2016*</u> The proposed modification, along with the proposed project works discussed in the project REF, would result in the clearing of about 7.53 hectares of two Plant Community Types, including:	Nil

Clause	Factor	Impact
	• 6.2 hectares of Blackbutt – Turpentine – Bangalay moist open forest on sheltered slopes and gullies, southern Sydney basin Bioregion (PCT 694) • 0.8 hectares of Sydney Blue Gum x Bangalay – Lilly Pilly moist open forest in gullies and on sheltered slopes, southern Sydney Basin Bioregion (PCT 1245) The proposed modification would not result in an increase in the impacts on habitat of any protected animals. The recommended offset strategy is documented in Section 6.1 of this addendum REF. The proposed modification would have no long-term impacts on any aquatic ecosystems, habitats or species.	
S171(g)	<u>The endangering of a species of animal, plant or other form of life, whether living on land, in water or in the air</u> The proposed modification will require the removal of a number of mature trees. Significant impacts to flora, fauna, or any other form of life would not be likely as a result of the proposed modification works as this vegetation is not commensurate to any plant community type and does not represent important habitat to any threatened species.	Nil
S171(h)	<u>Long-term effects on the environment</u> The proposed modification would be unlikely to have long-term effects on the environment as the features of the modification will largely result in temporary impacts.	Nil
S171(i)	Degradation of the quality of the environment The proposed modification will create impacts that are largely temporary or are located in areas that have already been assessed for impact in the project REF so will not likely caused degradation to the quality of the environment.	Long term - minor
S171(j)	<u>Risk to the safety of the environment</u> Traffic management safeguards will be implemented during the construction works to reduce the risk of safety. Once operational, the proposed modification would improve the safety for road users by facilitating the construction of the overall project and providing faster response times to traffic incidents in the area.	Short term – minor negative Long term - positive
S171(k)	<u>Reduction in the range of beneficial uses of the environment</u> The proposed modification would not reduce the range of beneficial uses of the environment.	Nil
S171(l)	<u>Pollution of the environment</u>	

Clause	Factor	Impact
	There is a potential for accidental spills of chemicals during the construction which could affect the surrounding land, surface water and ground water. Management measures regarding accidental spills can be found in Section 7 of this addendum REF.	Short term – potential minor negative
S171(m)	Environmental problems associated with the disposal of waste There are no predicted to be wastes generated by the proposed modification that are not common. Difficulty in disposing of wastes are not considered likely.	Nil
S171(n)	Increased demands on natural or other resources that are, or are likely to become, in short supply All resources required for the proposed modification are readily available and are not in short supply. The scope of the proposed modification is not significant compared to the REF.	Nil
S171(o)	The cumulative environmental effect with other existing or likely future activities The proposed modification works will be done concurrently with the proposed project works outlined in the Project REF. There is potential for the construction period to overlap with the construction period for the M1 Princes Motorway improvements between Picton Road and Bulli Tops (located 7 km to the north of the proposed modification area). Traffic management of both proposals would be considered to minimise potential delays. There is the potential for the proposed modification to result in a cumulative impact with works being carried out or proposed under the current University of Wollongong campus masterplan. Depending on the program of development for the masterplan, this could include the in-combination impact of construction traffic on the local road network, and related noise and air quality impacts on nearby receptors. The University of Wollongong masterplan and the proposed modification would improve the visual landscape, help to enhance local biodiversity and enhance connectivity and public access for the town of Wollongong in the operation of the proposal. Cumulative impacts of the proposal are discussed in Section 6.5 of this addendum REF.	Short term – potential negative Short term – potential negative
S171(p)	The impact on coastal processes and coastal hazards, including those under projected climate change conditions The proposed modification would not result in any impact on coast processes and coastal hazards.	Nil
S171(q)	Any applicable local strategic planning statement, regional strategic plan or district strategic plan made under Division 3.1 of the Act The proposed modification falls within the footprint of the Illawarra Regional Plan 2041, and aligns with the following objectives:	

Clause	Factor	Impact
	• Objective 1: Strengthen Metro Wollongong as a connected, innovative and progressive city • Objective 27: Protect major freight networks The proposed modification will improve the performance of the existing interchange and provide benefits to the broader network through travel efficiencies and improved reliability. It will also improve freight networks between Port Kembla and along the Princes Motorway. The proposed modification also falls within the footprint of the Wollongong Strategic Planning Statement 2020, and aligns with the following objectives: • Jobs and Economic Growth • Housing for All • Inclusive and Connected Communities • Climate Action and Resilience • Protect the Natural Environment • Enabling Infrastructure and Transport • Key Localities – Local Strategies, Character and Visions The proposed modification will facilitate the above objectives through facilitating employment opportunities, improving the connectivity of the region, minimising impact to the natural environment and not impacting on high value biodiversity items.	Long term – positive Long term – positive
S171(r)	<u>Any other relevant environmental factors</u> There are no other relevant environmental factors associated with the proposed modification.	Nil

Matters of National Environmental Significance and Commonwealth land

Under the environmental assessment provisions of the EPBC Act, the following matters of national environmental significance and impacts on Commonwealth land are required to be considered to assist in determining whether the proposed modification should be referred to the Australian Government Department of Water, Agriculture and the Environment.

Under the EPBC Act strategic assessment approval a referral is not required for proposed road actions that may affect nationally listed threatened species, populations, endangered ecological communities and migratory species. Impacts on these matters are assessed in detail as part of this addendum REF in accordance with Australian Government significant impact criteria and taking into account relevant guidelines and policies.

Factor	Impact
Any impact on a World Heritage property?	Nil
Any impact on a National Heritage place?	Nil
Any impact on a wetland of international importance?	Nil
Any impact on a listed threatened species or communities?	Nil
Any impacts on listed migratory species?	Nil
Any impact on a Commonwealth marine area?	Nil
Does the proposed modification involve a nuclear action (including uranium mining)?	Nil
Additionally, any impact (direct or indirect) on Commonwealth land?	Nil

Appendix B

Statutory consultation checklists

Transport and Infrastructure SEPP

Issue	Potential Impact	Yes / No	If 'yes' consult with	TI SEPP clause
Car Park	Does the project include a car park intended for the use by commuters using regular bus services?	No		TI SEPP cl.2.123(a)
Bus Depots	Does the project propose a bus depot?	No		TI SEPP cl.2.123(b)
Permanent road maintenance depot and associated infrastructure	Does the project propose a permanent road maintenance depot or associated infrastructure such as garages, sheds, tool houses, storage yards, training facilities and workers' amenities?	No		IT SEPP cl.2.123(c)

Council related infrastructure or services

Issue	Potential impact	Yes / No	If 'yes' consult with the relevant local council(s).	TI SEPP clause
Stormwater	Are the works likely to have a substantial impact on the stormwater management services which are provided by council?	No		TI SEPP cl.2.10(1)(a)
Traffic	Are the works likely to generate traffic to an extent that will strain the capacity of the existing road system in a local government area?	No		TI SEPP cl.2.10(1)(b)
Sewerage system	Will the works involve connection to a council owned sewerage system? If so, will this connection have a substantial impact on the capacity of any part of the system?	No		TI SEPP cl.2.10(1)(c)
Water usage	Will the works involve connection to a council owned water supply system? If so, will this require the	No		TI SEPP cl.2.10(1)(d)

Issue	Potential impact	Yes / No	If 'yes' consult with the relevant local council(s).	TI SEPP clause
	use of a substantial volume of water?			
Temporary structures	Will the works involve the installation of a temporary structure on, or the enclosing of, a public place which is under local council management or control? If so, will this cause more than a minor or inconsequential disruption to pedestrian or vehicular flow?	No		TI SEPP cl.2.10(1)(e)
Road & footpath excavation	Will the works involve more than minor or inconsequential excavation of a road or adjacent footpath for which council is the roads authority and responsible for maintenance?	Yes	Wollongong City Council	TI SEPP cl.2.10(1)(f)

Local heritage items

Issue	Potential impact	Yes / No	If 'yes' consult with the relevant local council(s)	ISEPP clause
Local heritage	Is there is a local heritage item (that is not also a State heritage item) or a heritage conservation area in the study area for the works? If yes, does a heritage assessment indicate that the potential impacts to the heritage significance of the item/area are more than minor or inconsequential?	No		TI SEPP cl.2.11

Flood liable land

Issue	Potential impact	Yes / No	If 'yes' consult with	ISEPP clause
Flood liable land	Are the works located on flood liable land? If so, will the works change flood patterns to more than a minor extent?	No		TI SEPP cl.2.12

Public authorities other than councils

Issue	Potential impact	Yes / No	If 'yes' consult with	ISEPP clause
National parks and reserves	Are the works adjacent to a national park or nature reserve, or other area reserved under the *National Parks and Wildlife Act 1974*, or on land acquired under that Act?	No		TI SEPP cl.2.15(2)(a)
National parks and reserves	Are the works on land in Zone E1 National Parks and Nature Reserves or in a land use zone equivalent to that zone?	No		TI SEPP cl. 2.15(2)(b)
Navigable Waterways	Does the development comprise of a fixed or floating structure in or near navigable waters?	No		TI SEPP cl.2.15(2)(c)
Artificial light	Would the works increase the amount of artificial light in the night sky and that is on land within the dark sky region as identified on the dark sky region map? (Note: the dark sky region is within 200 kilometres of the Siding Spring Observatory) defined by the *Sydney Harbour Foreshore Authority Act 1998*?	No		TI SEPP cl.2.15(2)(d)
Defence communications buffer land	Are the works on buffer land around the defence communications facility near Morundah? (Note: refer to Defence Communications Facility Buffer Map referred to in clause 5.15 of Lockhardt LEP 2012, Narrandera LEP 2013 and Urana LEP 2011).	No		TI SEPP cl.2.15(2)(e)
Mine subsidence land	Are the works on land in a mine subsidence district within the meaning of the *Mine Subsidence Compensation Act 1961*?	No		TI SEPP cl.2.15(2)(f)
Bush fire prone land	Are the works for the purpose of residential development, an educational establishment, a health services facility, a correctional centre or group home in bush fire prone land?	No		TI SEPP cl.2.16

Appendix C

Addendum Biodiversity Assessment Report (addendum BAR) (Jacobs 2022)

M1 Princes Motorway Mount Ousley Interchange Upgrade

Addendum Biodiversity Assessment Report (BAR)

Contents

Executive summary

Transport for NSW (TfNSW) proposes to upgrade the M1 Princes Motorway interchange at the base of Mount Ousley. A Review of Environmental Factors (REF) was prepared for the M1 Princes Motorway Mount Ousley interchange upgrade project to satisfy TfNSW's duties under s.111 of the *Environmental Planning and Assessment 1979* (EP&A Act) to "examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of that activity" and s.112 in making decisions on the likely significance of any environmental impacts. The REF was determined in April 2018 and noted that the determination would remain current until March 2023.

The purpose of the addendum is to assess proposed minor design changes, introduced between the 80% and 100% concept design, which subsequently require revision to the original biodiversity assessment report (BAR) prepared by Jacobs in 2017 (Jacobs, 2017). These updates are provided in this addendum BAR and includes consideration of the currency of the assessment information, identifying up to date biodiversity information and data, including species records and listing status, and any changed legislative requirements or revised survey guidelines since the 2016-2017 survey was completed.

While the project is currently within the five year project validity period, there is a risk that construction work may commence after the 5-year project determination date. As a result, it was recommended that the BAR be updated with revisions to the assessment of significance, and additional surveys if deemed necessary. The review triggered the need for a BAR addendum and additional survey based on the following considerations:

- targeted survey of the critically endangered *Rhodamnia rubescens* (Scrub Turpentine) (listed under the *Biodiversity Conservation Act 2016* (BC Act) and *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) to understand the current occurrence of this species in the study area
- a revised assessment to determine the significance of impacts on listed species under the BC Act using the NSW Threatened Species Test of Significance Guidelines and has considered any newly listed species that have potential to occur such as *Rhodamnia rubescens* and White-throated Needletail (*Hirundapus caudacutus)*
- biodiversity values and potential biodiversity impacts from the construction and operation of the proposed modifications.

Targeted surveys for *Rhodamnia rubescens* were undertaken over one day on 8 February 2022 by two experienced ecologists in suitable habitat within the study area. Walked transect searches were conducted in around 10 hectares of suitable habitat associated with PCT 694 and 1245 which are considered suitable habitat for this species.

The study area comprises moderate to good condition Plant Community Types (PCTs):

- Blackbutt - Turpentine - Bangalay moist open forest on sheltered slopes and gullies, southern Sydney Basin Bioregion (694)
- Sydney Blue Gum x Bangalay – Lilly Pilly moist forest in gullies and on sheltered slopes, southern Sydney Basin Bioregion (1245).

No threatened ecological communities (TEC) have been recorded in the study area.

Two threatened mammals were recorded during surveys for the original BAR (Jacobs, 2017), these include:

- Large Bent-winged Bat (*Miniopterus orianae oceanensis*) – recorded in the study area (Jacobs, 2017)
- Little Bentwing-bat (*Miniopterus australis*) – recorded in the study area (Jacobs, 2017)
- Grey-headed Flying-fox (*Pteropus poliocephalus*) – recorded in the study area (Jacobs, 2017).

The study area also provides suitable habitat for a range of threatened species listed under the (BC Act) and/or (EPBC Act) including:

- *Senna acclinis* (Rainforest Cassia)
- *Rhodamnia rubescens* (Scrub Turpentine)
- *Solanum celatum*
- Gang-gang Cockatoo (*Callocephalon fimbriatum*)
- Varied Sittella (*Daphoenositta chrysoptera*)
- Little Lorikeet (*Glossopsitta pusilla)*
- Swift Parrot (*Lathamus discolor*)
- Powerful Owl (*Ninox strenua*)
- Greater Glider (*Petauroides volans*).

The total revised impact on native vegetation is around 7.53 hectares. This is a slight reduction of 0.04 hectares in the revised proposal footprint since the 2017 BAR.

The project would remove around 7.53 hectares of potential habitat for threatened flora species *Senna acclinis*, *Solanum celatum* and *Rhodamnia rubescens*. However, targeted surveys for these species were undertaken and are not present.

The loss of foraging habitat for threatened fauna within the revised proposal footprint comprises 7.53 hectares of native vegetation, plus an additional 5.05 hectares of native roadside and landscape plantings which provide potential habitat of low importance. There is no change to the area of loss for roadside and landscape plantings and disturbed areas dominated weeds from the minor design changes. Impacts to these areas remain the same as the 2017 BAR as 5.05 hectares and 0.98 hectares, respectively.

The assessments of significance assessed under both the BC Act and EPBC Act concluded that the revised design, which includes a reduced impact from the assessed 2017 project design, is unlikely to significantly affect relevant threatened biodiversity values. This conclusion is consistent with the previous assessment in the 2017 BAR.

Mitigation measures outlined in the 2017 BAR (Jacobs, 2017) were proposed to address and manage both direct and indirect impacts during construction and operation. These remain adequate for the BAR addendum. The TfNSW Biodiversity Guidelines and procedures identify a range of mitigation techniques to be applied, including managing the vegetation clearing process, re-establishment of native vegetation at the end of a proposal, weed management, and installation of erosion and sediment controls as appropriate. These are outlined in **Annexure B**.

According to the TfNSW Guideline for Biodiversity Offsets, a suitable offset for the loss of 7.53 hectares of threatened fauna species habitat would be a 3:1 ratio. This would result in an offset requirement of 22.59 hectares for threatened fauna species habitat in moderate condition.

Glossary

Definitions	
Biodiversity Assessment Method	The Biodiversity Assessment Method is established under section 6.7 of the BC Act. The BAM is established for the purpose of assessing certain impacts on threatened species and threatened ecological communities (TECs), and their habitats, and the impact on biodiversity values.
Biodiversity offsets	The gain in biodiversity values achieved from the implementation of management actions on areas of land, to compensate for losses to biodiversity values from the impacts of development (DPIE 2020)
Calculator or BAM-C	Biodiversity Assessment Method Calculator – a tool that applies the BAM to calculate the number and type of credits required to offset the impacts of development on biodiversity or credits generated at a biodiversity stewardship site.
Cumulative impact	The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. Refer to Clause 228(2) of the EP&A Regulation 2000 for cumulative impact assessment requirements.
Direct impact	Direct impacts on biodiversity values include those related to clearing native vegetation and threatened species habitat, and impacts on biodiversity values prescribed by the Biodiversity Conservation Regulation 2017 (the BC Regulation) (DPIE 2020)
Habitat	An area or areas occupied, or periodically or occasionally occupied, by a species, population or ecological community, including any biotic or abiotic component.
Indirect impact	Impacts that occur when the proposal affects native vegetation and threatened species habitat beyond the development footprint or within retained areas (e.g. transporting weeds or pathogens, dumping rubbish). This includes impacts from activities related to the construction or operational phase of the proposal and prescribed impacts (DPIE 2020).
Local population	Local population: the population that occurs in the study area. The assessment of the local population may be extended to include individuals beyond the study area if it can be clearly demonstrated that contiguous or interconnecting parts of the population continue beyond the study area, according to the following definitions: • The local population of a threatened plant species comprises those individuals occurring in the study area or the cluster of individuals that extend into habitat adjoining and contiguous with the study area that could reasonably be expected to be cross-pollinating with those in the study area. • The local population of resident fauna species comprises those individuals known or likely to occur in the study area, as well as any individuals occurring in adjoining areas (contiguous or otherwise) that are known or likely to utilise habitats in the study area. • The local population of migratory or nomadic fauna species comprises those individuals that are likely to occur in the study area from time to time or return year to year. (OEH 2018).
MNES	A matter of national environmental significance (MNES) protected by a provision of Part 3 of the EPBC Act

Mitchell landscape	Landscapes with relatively homogeneous geomorphology, soils and broad vegetation types, mapped at a scale of 1:250,000 (DPIE 2020).
Mitigation	Action to reduce the severity of an impact.
Mitigation measure	Any measure that facilitates the safe movement of wildlife and/or prevents wildlife mortality or injury.
Native vegetation	(a) trees (including any sapling or shrub or any scrub), (b) understorey plants, (c) groundcover (being any type of herbaceous vegetation), (d) plants occurring in a wetland. A plant is native to New South Wales if it was established in New South Wales before European settlement (BC Act).
Population	A group of organisms, all of the same species, occupying a particular area (DPIE 2020).
Proposal footprint	The area of land that is directly impacted on by the proposal that is being assessed under the EP&A Act, including access roads, and areas used to store construction materials. It includes the construction and operational areas for the proposal.
Study area	The area directly affected by the proposal and any additional areas likely to be affected by the proposal, either directly or indirectly. See also definition of local population.
Target species	A species has been identified within the study area or is considered to have a moderate to high likelihood of occurrence and may be impacted by the proposal.

Abbreviations

BAM	Biodiversity Assessment Method (DIPE 2020)
BC Act	NSW Biodiversity Conservation Act 2016
BOS	Biodiversity Offset Scheme under the BC Act
CEEC	Critically Endangered Ecological Community
CEMP	Construction Environmental Management Plan
DAWE	Commonwealth Department of Agriculture, Water and the Environment
DPIE	NSW Department of Planning, Industry and Environment
DPI	NSW Department of Primary Industries
EEC	Endangered ecological community
EES	Environment Energy and Science Group, Department of Planning, Industry and Environment
EP&A Act	NSW Environmental Planning and Assessment Act 1979
EPBC Act	Environmental Protection and Biodiversity Conservation Act 1999 (Commonwealth).
FM Act	NSW Fisheries Management Act 1994
GDE	Groundwater dependent ecosystems
IBRA	Interim Biogeographically Regionalisation of Australia
MNES	Matters of National Environmental Significance
NPWS	NSW National Parks and Wildlife Service
OEH	Former NSW Office of Environment and Heritage
PCT	Plant Community Type
REF	Review of Environmental Factors
SEPP	State Environmental Planning Policy
TECs	Threatened Ecological Communities
TBDC	Threatened Biodiversity Data Collection
Transport	Transport for NSW
VEC	Vulnerable Ecological Community
VIS	Vegetation information system

1 Introduction

1.1 Proposal background

A Review of Environmental Factors (REF) was prepared for the M1 Princes Motorway Mount Ousley interchange upgrade project to satisfy TfNSW's duties under s.111 of the *Environmental Planning and Assessment 1979* (EP&A Act) to "examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of that activity" and s.112 in making decisions on the likely significance of any environmental impacts. The REF was determined in April 2018 and noted that the determination would remain current until March 2023.

This addendum Biodiversity Assessment Report (BAR) has been prepared by Jacobs on behalf of Transport for NSW (TfNSW) to form part of the original BAR (Jacobs, 2017) and the REF prepared for the M1 Mt Ousley interchange proposal and assesses any additional biodiversity impacts of the proposal to meet the requirements of the EP&A Act.

1.2 The proposal

The purpose of the addendum is to assess proposed minor design changes, introduced between the 80% and 100% concept design, that were not assessed in the original BAR (Jacobs, 2017). Modification to the 80% concept design includes a fifth leg to the eastern roundabout. Works generally follow the same footprint, with some areas extending or receding based on cut/fill works, with the exception of Mount Ousley Road where works now extend further to the east meaning potentially increased impacts to residents (**Figure 1 1**).

In terms of the biodiversity scope, a revision of biodiversity information reported in a memo was completed to identify any potential gaps in the previous 2017 BAR (Jacobs, 2017) and to consider the currency of the work particularly in light of any new data, or species records and listings, and any changed legislative requirements or revised survey guidelines since the 2016-2017 survey was completed. While the project is currently within the five year project validity period, there is a risk that construction work may commence after the 5-year project determination date. As a result, it was recommended that the BAR be updated with revisions to the assessment of significance, and additional surveys if deemed necessary.

In conjunction with the BAR completed in 2017(Jacobs, 2017), the addendum BAR provides additional information that outlines the biodiversity values and potential biodiversity impacts to species, populations and communities and their habitats listed as threatened under the NSW *Biodiversity Conservation Act 2016* (BC Act) and the *Fisheries Management Act 1994* (FM Act). Relevant Matters of National Environmental Significance (MNES) are considered listed under *the Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

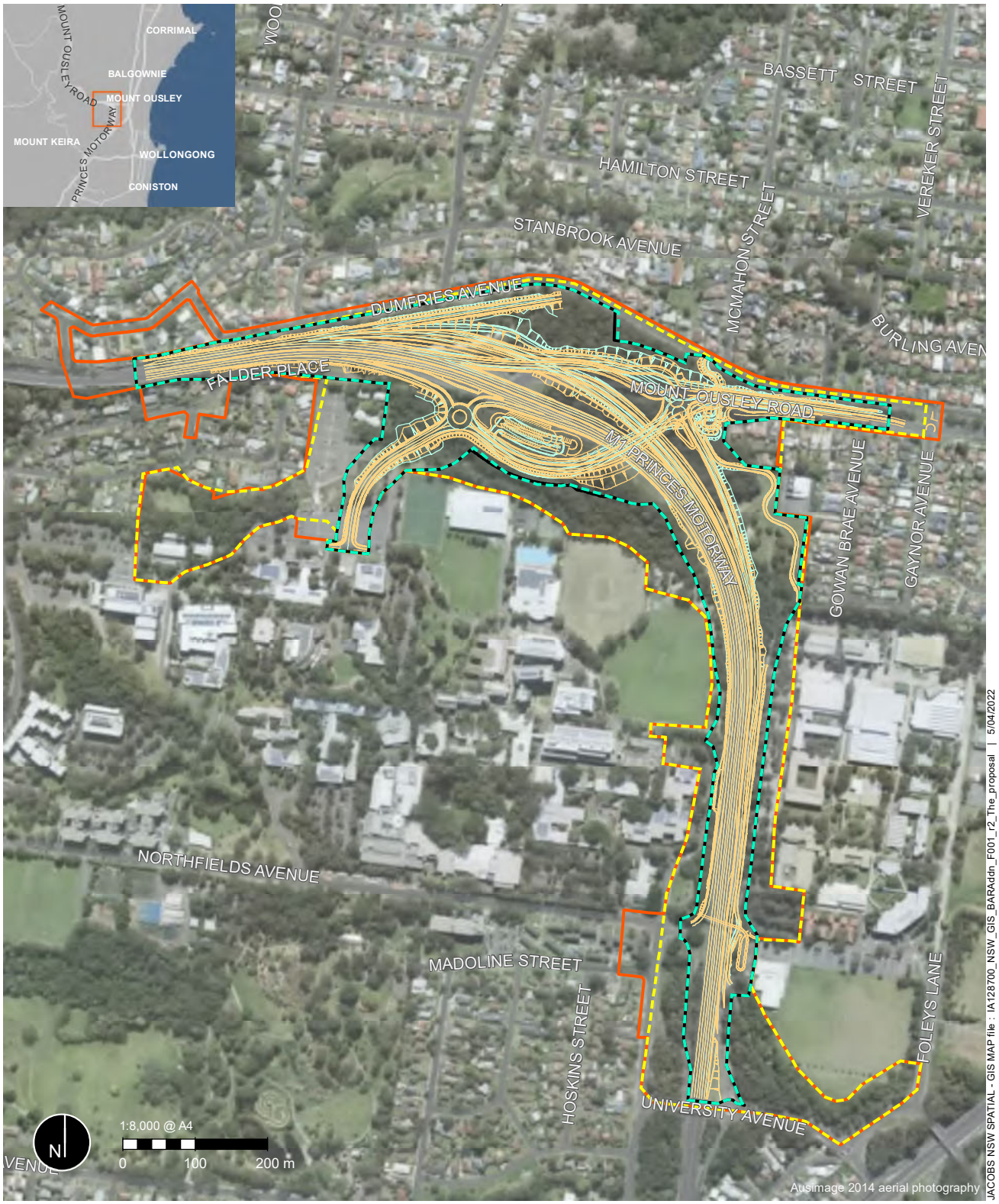
In summary, the following additional information is considered in this addendum BAR:

- targeted survey of the critically endangered *Rhodamnia rubescens* (Scrub Turpentine) (listed under the BC Act and EPBC Act) to understand the current occurrence of this species in the study area
- a revised assessment to determine the significance of impacts on listed species under the BC Act using the NSW Threatened Species Test of Significance Guidelines and has considered any newly listed species that have potential to occur such as *Rhodamnia rubescens* and White-throated Needletail (*Hirundapus caudacutus*)
- biodiversity values and potential biodiversity impacts from the construction and operation of the proposed modifications.

1.3 Study area

The following areas are discussed throughout the BAR addendum, are displayed in **Figure 1 1** and are defined as:

- Original proposal footprint: this area comprises the limits of the construction design and compound site locations used in the 2017 BAR (Jacobs, 2017)
- Revised proposal footprint: this area comprises the limits of the construction design and compound site locations in the BAR addendum (Jacobs, 2017)
- Original study area: includes the proposal footprint and surrounding area that was used to assess impacts in the 2017 BAR (Jacobs, 2017)
- Revised study area: includes the proposal footprint and surrounding area (see) that was used to assess impacts in the BAR addendum
- Locality: This is defined as the area within a 10 kilometre radius surrounding the proposal footprint.



Legend

- 80% Design
- 100% Design
- Original proposal footprint
- Revised proposal footprint
- Original study area
- Revised study area

Figure 1-1 | Study area, proposal footprint and concept design

2 Methods

2.1 Personnel

This addendum BAR was prepared by suitably qualified and experienced ecologist Jonathan Carr (Senior Ecologist), with technical review by Chris Thomson (Principal Ecologist). Field survey was completed by experienced field ecologists Jonathan Carr and Kirsty Raines.

2.2 Background research

A review of biodiversity information was undertaken in August 2021 with an aim to identify survey gaps and validate data currency. This included revision of current survey guidelines, changes in threatened species ecology and distributions, and updated PCT information due to changes in the environment since the 2017 survey.

The desktop review identified new records of threatened biodiversity in the revised study area, listing status and potential changes to the condition of vegetation/habitat due to climatic conditions (drought, fire etc.).

The review consulted the following information sources:

- NSW EES BioNet- Species sightings http://www.bionet.nsw.gov.au/
- NSW DPI Fisheries Spatial Data Portal: https://www.dpi.nsw.gov.au/about-us/science-and-research/spatial-data-portal
- SEED datasets including Biodiversity Values Map and available native vegetation community mapping (https://geo.seed.nsw.gov.au/)
- Coastal management areas identified by the State Environmental Planning Policy (Coastal Management) 2018 (Coastal Management SEPP)
- Commonwealth datasets:
    - The DAWE's Protected Matters Search Tool: http://environment.gov.au/erin/ert/epbc/index.html
    - The Commonwealth Bureau of Meteorology's Atlas of Groundwater Dependent Ecosystems (GDE): http://www.bom.gov.au/water/groundwater/gde/map.shtml
    - National Flying-fox monitoring viewer. http://www.environment.gov.au/webgis-framework/apps/ffc-wide/ffc-wide.jsf.

The review also identified any changes to new and existing threatened biodiversity listings and any new recorded sightings since the 2017 assessment, in relation to the change of legislation that warrant targeted biodiversity survey effort. Preliminary listings for biodiversity under the BC Act, FM Act and the EPBC Act were also considered.

2.3 Habitat assessment

The former habitat assessment was reviewed and updated where applicable to assess the likelihood of a threatened species, or ecological community (threatened biodiversity) occurring with the amended project study area. All threatened biodiversity were identified by literature and database searches.

There was no change in the likelihood of occurrence of threatened biodiversity since the BAR 2017. There was a change in listing status for the following threatened species with a moderate to high likelihood of occurrence:

- Rhodamnia rubescens has a high likelihood of occurring in the study area and is listed as critically endangered under the BC Act (gazetted 1 February 2019) and critically endangered under the EPBC Act (11 December 2020). This species was not listed as a threatened species under these legislation at completion of the 2017 BAR (Jacobs, 2017).

- White-throated Needletail (Hirundapus caudacutus) has a moderate likelihood of occurring in the study area and is listed as vulnerable under the EPBC Act (gazetted 4 July 2019). This species was listed as a migratory species under the EPBC Act but not listed under legislation at completion of the 2017 BAR (Jacobs, 2017).

The listing status of Littlejohn's Tree Frog (*Litoria littlejohni*) was recently changed to endangered under the EPBC Act (gazetted 18 February 2022) following a taxonomic review of the species. This species was listed as vulnerable under the BC Act and EPBC Act during the preparation of the 2017 BAR (Jacobs, 2017). It has now been divided into two species *Litoria littlejohni* and *Litoria watsonii* (Watson's tree Frog) (Mahony et al. 2020). These species are known to occur in the plateau region of the Wollongong LGA. The species is considered to have a low likelihood of occurring in the study area, which does not contain any suitable sandstone woodland or heath communities.

The review indicates that targeted surveys are required for *Rhodamnia rubescens* based on the outcome of the habitat assessment and the survey method for this species is described in **Section 2.4.2**. The review of threatened biodiversity listings found that a critically endangered shrub *Rhodamnia rubescens* has potential to occur in the study area. *Rhodamnia rubescens* was listed under the BC Act in 2019 and EPBC Act in 2020, after the original BAR was prepared, and hence the species was not previously assessed.

The White-throated Needletail is a migrant that does not breed in the locality and is only likely to forage in the aerial spaces above the site. Therefore, targeted bird surveys were not proposed.

Four individuals of the threatened flora species *Syzygium paniculatum* (Magenta Lily Pilly) (listed endangered under the BC Act and vulnerable under the EPBC Act) were recorded in three locations of the study area in 2017. There is now evidence to support that these individuals were planted as roadside landscaping and therefore no further targeted surveys are proposed for this species.

2.4 Field survey

2.4.1 Vegetation and habitat survey

No vegetation integrity assessments were conducted in preparing this BAR Addendum, as the previous vegetation survey was considered adequate for the purpose of this assessment. A plot-based full floristic survey was undertaken in the previous 2017 survey and assessment in accordance with the former BioBanking Assessment Method (BBAM). Twelve plots/transects were completed to record stratum and layer, growth form, species name, cover and abundance rating. The data is directly applicable to the revised assessment.

The additional site visit for this addendum included rapid data points used to collect additional information focused near the revised design areas regarding dominant plant species, vegetation types and important habitat features suitable for threatened species. All survey points were undertaken in locations with planted/urban exotic or native trees. Not all locations were able to be inspected due to restricted access between residential houses and the M1 Princes Motorway.

2.4.2 Targeted flora surveys

Rhodamnia rubescens has been historically recorded in numerous locations to the west of the study area, as evident in BioNet records.

While this species was not recorded in plots or during other targeted threatened flora surveys in the original BAR, the species is associated with mapped PCTs in the study area and therefore additional survey was warranted. It has been noted as uncommon but recorded in a vegetation patch in proximity to the west of the study area on land owned by the University of Wollongong.

Consequently, targeted surveys for *Rhodamnia rubescens* were undertaken on 8 February 2022 by two experienced ecologists within the study area. The targeted survey followed the NSW survey guide for the Biodiversity Assessment Method: Surveying threatened plants and their habitats (DPIE, 2020) to ensure adequate survey effort for *Rhodamnia rubescens*. The study area generally comprised open vegetation (20 m wide transect spacing), with some small patches with dense vegetation (10 m wide) due to *Lantana camara* infestations. Large patches of *Lantana*

camara near Gowan Brae Avenue were too dense for walking and *Rhodamnia rubescens* was not searched at this location.

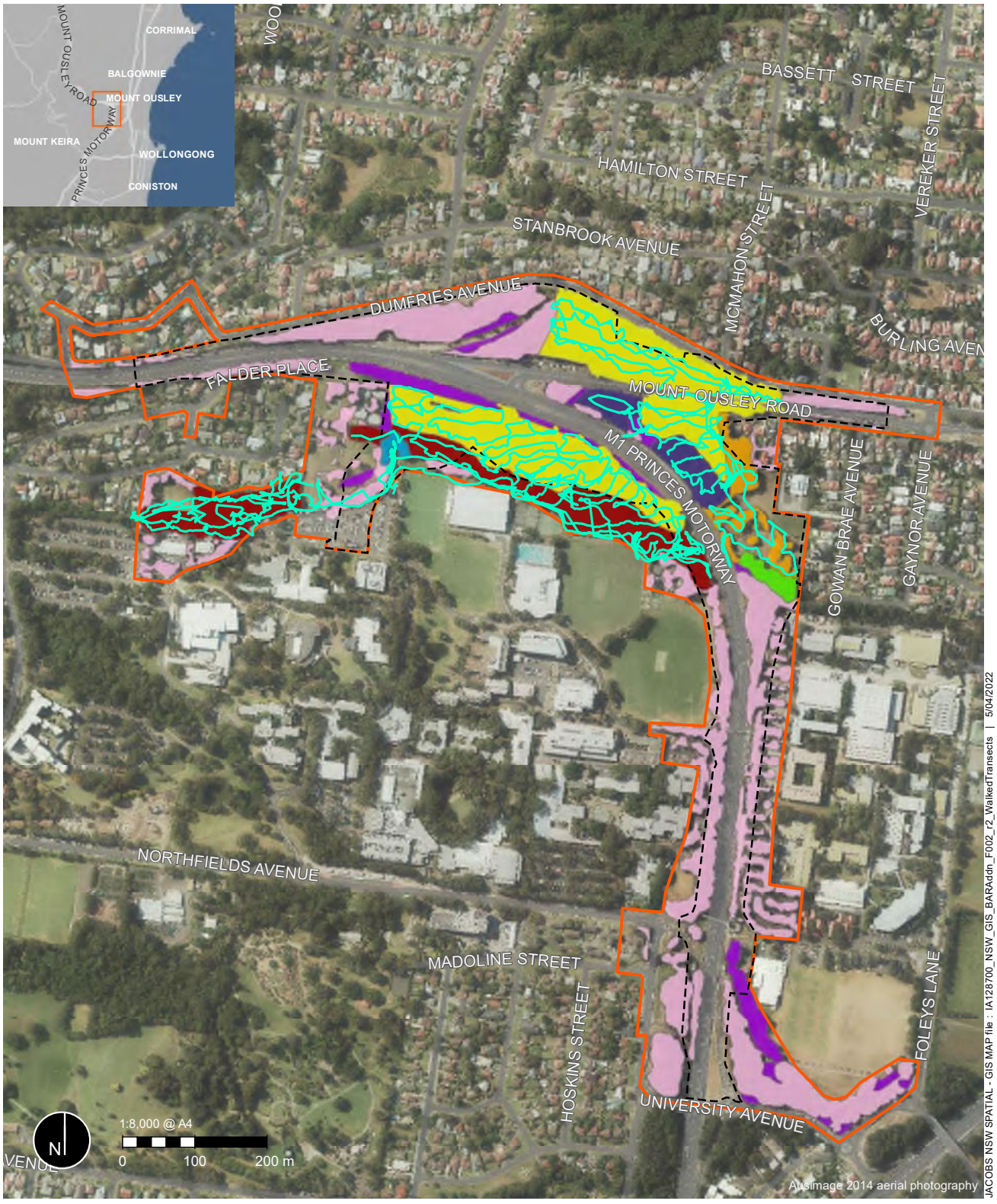
Walked transect searches were conducted in around 10 ha of suitable habitat associated with PCT 694 and 1245, the location of the transect searches are illustrated in **Figure 2-1**. This species is detectable all year and can be surveyed anytime within the survey program. Weather conditions were suitable for detecting *Rhodamnia rubescens* following average rainfall during the three months preceding survey.

2.4.3 Targeted fauna surveys

During the 2017 surveys, targeted surveys were undertaken for threatened fauna where potential habitat was identified within the study area. The location and method of terrestrial fauna surveys were guided by the *Threatened Biodiversity Survey and Assessment Guidelines for Developments and Activities – Working Draft* (Department of Environment and Conservation, 2004) and the *Threatened species survey and assessment guidelines: field survey methods for fauna – Amphibians* (Department of Environment and Climate Change, 2009). These fauna surveys that were conducted are considered adequate for the purpose of this assessment and no new fauna species have been identified by the desktop review, therefore no further targeted fauna surveys are required. Opportunistic observations of threatened fauna species and/or their habitat were noted during the flora targeted survey. This includes any observations of new bat colonies.

2.4.4 Aquatic habitat assessment

The characteristics observed during the aquatic habitat assessment undertaken in the BAR 2017 remain unchanged and do not match any habitat characteristics of any threatened aquatic species known or predicted to occur.



Legend

- Revised study area
- Proposal footprint
- Walked transect searches for Rhodamnia rubescens

Plant community types

- Blackbutt - Turpentine - Bangalay moist open forest on sheltered slopes and gullies, southern Sydney Basin Bioregion - Moderate/Good
- Blackbutt - Turpentine - Bangalay moist open forest on sheltered slopes and gullies, southern Sydney Basin Bioregion - Moderate/Good_Medium
- Blackbutt - Turpentine - Bangalay moist open forest on sheltered slopes and gullies, southern Sydney Basin Bioregion - Moderate/Good_Other
- Sydney Blue Gum x Bangalay - Lilly Pilly moist forest in gullies and on sheltered slopes, southern Sydney Basin Bioregion - Moderate/Good
- Sydney Blue Gum x Bangalay - Lilly Pilly moist forest in gullies and on sheltered slopes, southern Sydney Basin Bioregion - Moderate/Good_Other
- Sydney Blue Gum x Bangalay - Lilly Pilly moist forest in gullies and on sheltered slopes, southern Sydney Basin Bioregion - Moderate/Good_Poor
- Roadside and landscape plantings
- Disturbed areas dominated by weeds

Figure 2-1 | Walked transect searches for *Rhodamnia rubescens*

3 Existing environment

3.1 Native vegetation

The areas within the proposed modifications are predominately cleared land with surrounding residential housing comprising planted/urban trees. Details of the existing biodiversity in the proposed modified areas are outlined below.

The 2017 vegetation survey (Jacobs, 2017) identified moderate to good condition Plant Community Types (PCTs):

- Blackbutt - Turpentine - Bangalay moist open forest on sheltered slopes and gullies, southern Sydney Basin Bioregion (694)
- Sydney Blue Gum x Bangalay – Lilly Pilly moist forest in gullies and on sheltered slopes, southern Sydney Basin Bioregion (1245).

No threatened ecological communities (TEC) were recorded in the revised study area.

PCT mapping in the 2017 BAR (Jacobs, 2017) remains valid and was used to assess impacts in the BAR addendum. Only planted vegetation was updated in the revised study area. This comprised 0.7 hectares of roadside and landscape plantings/urban trees. The total area of PCTs in the revised study area comprises 10.46 hectares (see **Figure 3-1**).

3.2 Fauna habitat

There was limited fauna habitat observed within the additional areas associated with the proposed modification. Planted trees and shrubs provide shelter and refuge for resident and vagrant fauna species, mainly birds. No hollow bearing trees were detected in the proposed modification areas.

3.3 Threatened species

No threatened flora and/or fauna species were detected during surveys. Although intensive searches were completed to locate any *Rhodamnia rubescens*, no individuals were detected. Dialogue from a University of Wollongong landscape gardener suggested that the previously known individuals growing near the creeklines between Ring Road and Northfields Avenue on University grounds have died due to infection by Myrtle Rust.

Threatened species habitat in the revised study area is considered minimal, providing only marginal foraging and roosting habitat.

Two additional threatened flora species had a moderate likelihood of occurrence with suitable habitat in the revised study area:

- *Senna acclinis* (Rainforest Cassia) (listed endangered under the BC Act)
- *Solanum celatum* (listed endangered under the BC Act).

None of these species were detected during surveys in 2017 and 2022.

Three threatened fauna species were recorded in the revised study area, including the Grey-headed Flying Fox (*Pteropus poliocephalus*) (listed vulnerable under the BC Act and EPBC Act), Large Bent-winged Bat (*Miniopterus orianae oceanensis*) and Little Bent winged Bat (*Miniopterus australis*) (both listed vulnerable under the BC Act). Habitat for the Grey-headed Flying Fox in the study area is foraging only. No roosting camp was observed during the 2017 and 2022 surveys. All PCTs in the study area remain suitable foraging habitat for these three species. No roosting habitat was identified within the study area for these two microbat species during 2017 and 2022.

Six additional threatened fauna species are considered moderately likely to occur within the revised study area due to the presence of suitable foraging habitat. These species included:

- Gang-gang Cockatoo (listed vulnerable under the BC Act)
- Varied Sittella (listed vulnerable under the BC Act)

- Little Lorikeet (listed vulnerable under the BC Act)
- Swift Parrot (listed endangered under the BC Act and critically endangered under the EPBC Act)
- Powerful Owl (listed vulnerable under the BC Act)
- Greater Glider (listed vulnerable under the EPBC Act).

3.4 Groundwater dependent ecosystems

The BOM's Atlas of GDE mapped the dominant native vegetation in the revised study area with a high potential for groundwater interaction. Native vegetation is likely to use groundwater where available during times of water stress but would generally be dependent on high local rainfall. The shallow, disturbed first-order streams of the site have only ephemeral flow, lack baseflow characteristics and are unlikely to be dependent on groundwater.

3.5 Aquatic habitat

The streams affected by the proposal are in poor condition due to previous development and agricultural activity within their catchments, which has resulted in changes to hydrological conditions, increased input of nutrients, sedimentation and weed invasion. No threatened species listed under the FM Act are likely to occur in these streams and significant impacts to aquatic ecosystems are unlikely to occur as a result of the proposal.

No aquatic habitats occur within the additional areas for the proposed modifications.

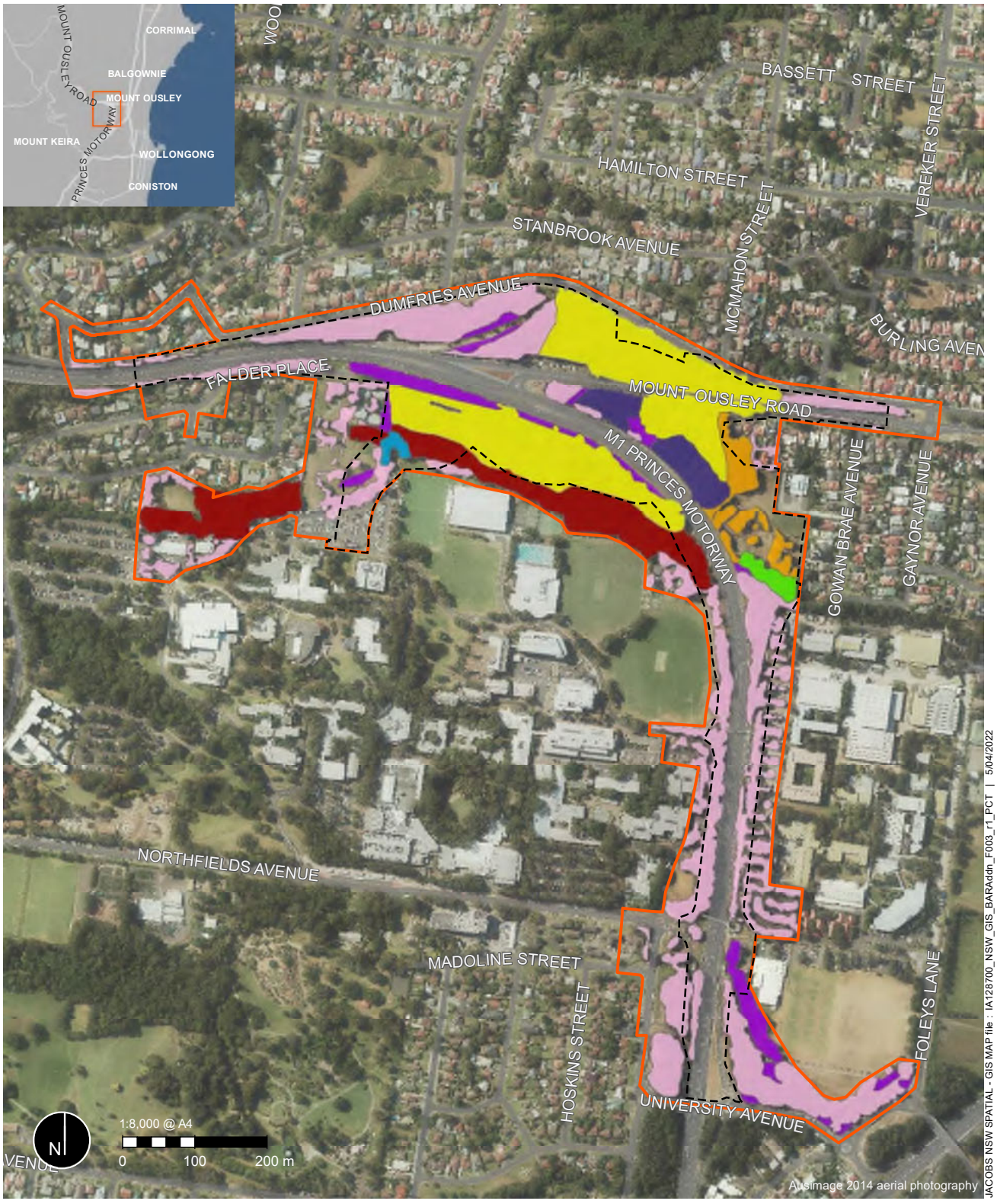
3.6 Wildlife connectivity corridors

Vegetation and fauna habitat within the proposed modifications do not provide important wildlife connectivity. As noted in the 2017 BAR, the current alignment of the M1 Princes Motorway and Mt Ousley Road divides the remaining habitats within the revised study area into four main fragments. The road barriers on the M1 Princes Motorway and Mt Ousley Road restrict fauna movements between the habitat patches for terrestrial and arboreal species.

3.7 Matters of National Environmental Significance

The 2017 BAR (Jacobs, 2017) identified that there was one threatened fauna species recorded in the original study area, the Grey-headed Flying Fox, which is listed as vulnerable under the EPBC Act and was commonly observed at night flying over and foraging in the habitat in the study area. All PCTs in the study area are considered to provide suitable foraging habitat for the Grey-headed Flying-fox. Two other EPBC Act listed fauna species: the Swift Parrot and Greater Glider are considered moderately likely to occur based on the presence of suitable habitats. This existing environment in the revised study area remains consistent with these considerations.

The White-throated Needletail is listed vulnerable under the EPBC Act (was not listed threatened during the 2017 BAR) and has a moderate potential of occurring in the revised study area. This species was assessed as a migratory species listed under the EPBC Act in the 2017 BAR. An assessment of significance has been completed for this species in **Annexure A**. While this species may fly over the revised study area on occasion during seasonal migration, it is unlikely to land in the revised study area to utilise as habitat.



Legend

- Revised study area
- Proposal footprint

Plant community types

- Blackbutt - Turpentine - Bangalay moist open forest on sheltered slopes and gullies, southern Sydney Basin Bioregion - Moderate/Good
- Blackbutt - Turpentine - Bangalay moist open forest on sheltered slopes and gullies, southern Sydney Basin Bioregion - Moderate/Good_Medium
- Blackbutt - Turpentine - Bangalay moist open forest on sheltered slopes and gullies, southern Sydney Basin Bioregion - Moderate/Good_Other
- Sydney Blue Gum x Bangalay - Lilly Pilly moist forest in gullies and on sheltered slopes, southern Sydney Basin Bioregion - Moderate/Good
- Sydney Blue Gum x Bangalay - Lilly Pilly moist forest in gullies and on sheltered slopes, southern Sydney Basin Bioregion - Moderate/Good_Other
- Sydney Blue Gum x Bangalay - Lilly Pilly moist forest in gullies and on sheltered slopes, southern Sydney Basin Bioregion - Moderate/Good_Poor
- Roadside and landscape plantings
- Disturbed areas dominated by weeds

Figure 3-1 | Plant community types and other vegetation

4 Impact assessment

4.1 Construction impacts

4.1.1 Removal of native vegetation

The direct impact associated with vegetation and habitat removal has been calculated using the revised proposal footprint for determining the clearing limits and impacts to biodiversity values.

The total revised impact on native vegetation is around 7.53 hectares. This is a slight reduction of 0.04 hectares in the revised proposal footprint since the 2017 BAR (Jacobs, 2017). There is a slight change of 0.11 hectares between PCT 1245 vegetation zones Moderate / Good_ Poor and Moderate / Good_ Other. This is a result of differences between the original proposal footprint and revised proposal footprint. A breakdown of impacts to PCTs is outlined in **Table 4-1**.

There is no change to the area of loss for roadside and landscape plantings and disturbed areas dominated weeds and remain the same as the 2017 BAR as 5.05 hectares and 0.98 hectares, respectively.

Table 4-1 Impacts to native vegetation within the revised proposal footprint

Plant community type (PCT)	Condition class	Original 2017 BAR impacts (ha)	Change in impact area compared to project REF (ha)	Revised total impact (ha)
Blackbutt - Turpentine - Bangalay moist open forest on sheltered slopes and gullies, southern Sydney Basin Bioregion (694)	Moderate / Good	5.22	-0.04	5.18
	Moderate / Good_ Medium	0.83	0	0.83
	Moderate / Good_ Other	0.64	0	0.64
Sydney Blue Gum x Bangalay – Lilly Pilly moist forest in gullies and on sheltered slopes, southern Sydney Basin Bioregion (1245)	Moderate / Good	0.55	0	0.55
	Moderate / Good_ Poor	0.22	-0.11	0.11
	Moderate / Good_ Other	0.11	+0.11	0.22
Total native vegetation loss		**7.57**	**-0.04**	**7.53**

4.1.2 Removal of threatened flora

No naturally occurring threatened flora were recorded in the revised study area during the 2017 and 2022 surveys. The 2017 BAR surveys recorded four individuals of threatened flora species *Syzygium paniculatum* (Magenta Lily Pilly), *Eucalyptus nicholii* (Narrow-leaved Black Peppermint) and *Eucalyptus scoparia* (Willow Gum), however, there is evidence from the University of Wollongong and TfNSW to suggest that these specimens have been planted in the revised study area.

4.1.3 Removal of threatened fauna

All planted vegetation (plantings/urban areas) provide marginal habitat to some threatened species, particularly with trees that provide nectar resources, shelter and food resources. No

hollow bearing trees were found in the proposed modification areas. However, 19 hollow-bearing trees (including dead trees) were identified in the 2017 surveys within the footprint, which would be removed during construction.

The loss of threatened fauna foraging habitat within the proposal footprint comprises 7.53 hectares in areas with PCTs, in addition to 5.05 hectares of roadside and landscape plantings, which provide potential habitat of low importance. This is a reduction of potential habitat loss due to the reconfiguration of the revised proposal footprint. The plantings provide additional potential foraging habitat, particularly nectar producing feed trees such as *Eucalyptus* spp, which in time may be visited by the following threatened fauna species:

- Gang-gang Cockatoo (listed vulnerable BC Act)
- Varied Sittella (listed vulnerable BC Act)
- Little Lorikeet (listed vulnerable BC Act)
- Swift Parrot (listed endangered BC Act and critically endangered EPBC Act)
- Grey-headed Flying-fox (listed vulnerable BC Act and EPBC Act)
- Large Bent-winged Bat (listed vulnerable BC Act)
- Little Bent winged Bat (listed vulnerable BC Act)
- Greater Glider (listed vulnerable EPBC Act) (only habitat in PCTs).

4.1.4 Aquatic impacts

No additional aquatic impacts are expected to occur as a result of construction in the proposed modification areas.

4.1.5 Injury and mortality

Numerous Deer (*Cervus timorensis)* were observed within the revised study area during both 2017 and 2022 surveys. There is a high risk of vehicle collision with deer adjoining the M1 Princes Motorway. There are also direct impacts to native fauna that may reduce local population numbers of mammals, reptiles, amphibians and birds. As there are no definitive data on current rates of roadkill or fauna population densities in the revised study area, the consequences of vehicle strike on local populations are unknown.

4.2 Indirect/operational impacts

4.2.1 Wildlife connectivity and habitat fragmentation

Consistent with the project REF, the revised study area is already highly fragmented and will not break apart continuous habitats into separate smaller fragments. The loss of planted trees and habitat in the revised proposal footprint is not expected to have an appreciable impact on nomadic or migratory species such as birds. However, opportunities for dispersal may be affected and roadkill may be increased due to the increased road area and traffic that will be moving through areas of once continuous habitat.

4.2.2 Edge effects on adjacent native vegetation and habitat

The revised proposal footprint would be built in an area that is currently subject to a high level of edge effects from urban pressures, the existing roadways and other development. The vegetation patches within the revised proposal footprint is already affected by high weed invasion and other edge effects along existing patch edges and roadsides. It is likely that these weeds will persist during operation of the project.

4.2.3 Invasion and spread of weeds

The revised proposal footprint contain numerous species of weeds in high cover and abundance, particularly on roadside edges and along minor roads and tracks. The spread and proliferation of weeds will be managed during construction, as per the project REF.

4.2.4 Invasion and spread of pests

As per the project REF, construction activities have the potential to disperse pest species out of the original proposal footprint across the surrounding landscape. However, the magnitude of this impact would be low and effectiveness of mitigation measures are not known, and would be mitigated through design and during construction (REF safeguard B8).

4.2.5 Invasion and spread of pathogens and disease

Several pathogens known from NSW have potential to impact on biodiversity as a result of their movement and infection during construction. Of these, three are listed as a key threatening processes under either the EPBC Act and/or BC Act including:

- Dieback caused by Phytophthora (Root Rot; EPBC Act and BC Act)
- Infection of frogs by amphibian chytrid fungus causing the disease chytridiomycosis (EPBC Act and BC Act)
- Introduction and establishment of exotic Rust Fungi of the order Pucciniales on plants of the family Myrtaceae (BC Act).

While these pathogens were not observed or tested for in the revised proposal footprint, the effects of *Austropuccinia psidii* (Myrtle Rust) is likely present with infection on local populations of *Rhodamnia rubescens*. This has caused severe damage across the species entire range. The potential for other pathogens to occur should be treated as a risk during construction. As per the project REF, the most likely causes of pathogen dispersal and importation associated with the revised study area include earthworks, movement of soil, and attachment of plant matter to vehicles and machinery during all project phases (construction and operation).

4.2.6 Changes to hydrology

As per the REF, the project is likely to result in some changes to factors including flow velocity, depth, turbulence and flooding regimes of the two small, ephemeral first-order streams on the site. The extent of these changes would be controlled through design measures and construction environmental management and would therefore be largely restricted to the proposal footprint and immediate surrounds.

4.2.7 Noise, light and vibration

As per the project REF, considering the existing levels of noise and vibration from the existing M1 Princes Motorway and other roads by vehicles, it is unlikely there would be a significant increase in noise and vibration during operation of the road that would result in any increased impacts to biodiversity within the modified project area. Similarly, any changes in road traffic noise and vibration since determination of the REF are unlikely to have resulted in any increased impacts to biodiversity. There is however potential for impacts to fauna from noise and vibration during construction, which may result in fauna temporarily avoiding habitats adjacent to the construction. The magnitude of this impact would be low and would be mitigated through design and during construction.

Lighting would be used at night to enable work to be completed that may result in impacts to nocturnal fauna. Nocturnal species such as possums and microbats may avoid the habitat in the modified project area during construction as temporary ‘daylight’ conditions would be created by the mobile lighting system. This impact is considered temporary and would not have long lasting effects on the biodiversity of the modified project area. The magnitude of this impact would be low and mitigation measures are not deemed necessary.

4.2.8 Groundwater dependent ecosystems

As per the project REF, the proposed development's influence on groundwater levels is anticipated to be limited to localised changes to surface water runoff in the areas of road construction. Such changes are not expected to affect the local groundwater flow system, or alter groundwater/ surface water exchange with the local waterways.

The potential changes to groundwater level are considered unlikely to impact local GDEs.

4.3 Assessments of significance

The proposed works would be assessed under Division 5.1 of the EP&A Act. Section 7.3 of the BC Act outlines the 'test of significance' that is to be undertaken to assess the likelihood of significant impact upon threatened species or ecological communities listed under the BC Act.

For an activity under Division 5.1, an assessment of an activity that is likely to significantly affect a threatened species must be accompanied by a species impact statement or, if the proponent elects to participate in the biodiversity offsets scheme, a BDAR.

A revised assessment to determine the significance of impacts on listed species under the BC Act using the NSW Threatened Species Test of Significance Guidelines and has been conducted. This assessment focused on threatened species that have been positively identified within the study area and those considered to have a moderate or high likelihood of occurring in the study area due to the presence of suitable habitat and considered the proposed design amendments and any changes impacts since the 2017 BAR.

Full details of the individual assessment of significance under the BC Act are presented in **Annexure A**. The summary and conclusions of the BC Act assessment are provided in **Table 4-2**.

For threatened biodiversity listed under the EPBC Act, significance assessments have been updated to account for changes to impacts on habitat and newly added species such as *Rhodamnia rubescens* and White-throated needletail. Assessments have been completed in accordance with the EPBC Act Policy Statement 1.1 Significant Impact Guidelines (Department of Environment, 2013).

Table 4-2: Summary findings of the BC Act test of significance

Threatened species	Significance assessment questions					Likely significant impact?
	a	b	c	d	e	
Senna acclinis (Rainforest Cassia)	No	X	No	No	No	No
Solanum celatum	No	X	No	No	No	No
Rhodamnia rubescens (Scrub Turpentine)	No	X	No	No	No	No
Gang-gang Cockatoo (*Callocephalon fimbriatum*)	No	X	No	No	No	No
Varied Sittella (*Daphoenositta chrysoptera*)	No	X	No	No	No	No
Little Lorikeet (*Glossopsitta pusilla*)	No	X	No	No	No	No
Swift Parrot (*Lathamus discolor*)	No	X	No	No	No	No
Powerful Owl (*Ninox strenua*)	No	X	No	No	No	No
Little Bent-wing Bat (*Miniopterus australis*)	No	X	No	No	No	No
Large Bentwing-bat (*Miniopterus orianae oceanensis*)	No	X	No	No	No	No

Threatened species	Significance assessment questions					Likely significant impact?
	a	b	c	d	e	
Grey-headed Flying-fox (*Pteropus poliocephalus*)	No	X	No	No	No	No

Notes: X= not applicable

Table 4-3: Summary findings of the EPBC Act significance assessments

Threatened species	Important population[2]	Likely significant impact?
Rhodamnia rubescens (Scrub Turpentine)	No	No
Swift Parrot (*Lathamus discolor*)	No	No
Grey-headed Flying-fox (*Pteropus poliocephalus*)	No	No
Greater Glider (*Petauroides volans*)	No	No

+ Important population as determined by the EPBC Act is a population of a vulnerable species that:

- is likely to be key source populations either for breeding or dispersal
- is likely to be necessary for maintaining genetic diversity
- is at or near the limit of the species range.

5 Mitigation

No changes are proposed to the environmental safeguards and management measures presented in the 2017 BAR as a result of the revised proposal footprint. An updated complete list of proposed safeguards and management measures in line with this BAR addendum can be found in Annexure B.

5.1 Biodiversity offsets

The Transport Guideline for Biodiversity Offsets (Roads and Maritime, 2016) was used to identify relevant biodiversity offsets for the proposal. Residual impacts to biodiversity values (loss of vegetation and habitat) in the current proposal footprint are consistent with the following identified offset thresholds:

- Works involving the clearing of >1 hectare of nationally listed threatened species habitat in moderate condition, (related to loss of potential foraging habitat for Grey-headed Flying Fox, Swift Parrot and Greater Glider)
- The works would involve the clearing of >5 ha of NSW listed threatened species habitat where the species is an ecosystem credit species as defined in the Threatened Species Profile Database (TSPD).

Other residual impacts do not meet the offsetting thresholds for the following activities:

- The works would not involve the clearing of national or NSW listed critically endangered ecological communities in moderate to good condition
- The works would not involve the clearing of national listed threatened ecological communities
- The works would not involve the clearing of >5ha of an endangered or vulnerable ecological community
- The works would not involve the clearing of NSW listed threatened species habitat where the species is a species credit species as defined in the TSPD.

A total of 7.53 hectares is considered suitable habitat for three threatened flora species *Senna acclinis, Solanum celatum* and *Rhodamnia rubescens*. However, targeted surveys in the study area did not detect these species and offsets or supplementary measures therefore do not apply. Offsets are no longer required for planted *Syzygium paniculatum* trees.

Although planted vegetation is also considered suitable habitat for some threatened fauna species, the offset guidelines do not consider offsets or supplementary measures for works involving clearing of vegetation planted as part of a road corridor landscaping program (this includes where threatened species or species comprising listed ecological communities have been used for landscaping purposes) (Roads and Maritime, 2016).

To avoid offset duplication, once a particular area of threatened ecological community or threatened species habitat has been considered for offsets, that area cannot be counted again with a different threatened ecological community or threatened species habitat.

This biodiversity assessment identifies that the proposal is not likely to have a significant impact on threatened biodiversity listed under the BC Act and EPBC Act (see Appendix C and D of the 2019 BAR). Therefore, no like-for-like offsets for MNES are required.

In accordance with Transports offset thresholds, documented in Roads and Maritime (2016), biodiversity offsets apply for the proposed loss of vegetation associated with the revised proposal footprint, and are identified in **Table 5-1**.

Table 5-1 Biodiversity residual impacts associated with the final design and relevant offset thresholds

Plant community type (PCT) impacted	Condition class	Threatened species habitat of ecosystem credit species (ha)	Offset threshold and applicability
Blackbutt - Turpentine - Bangalay moist open forest on sheltered slopes and gullies, southern Sydney Basin Bioregion (694)	Moderate / Good	5.18 ha (refer to Section 4.1.1 for list of fauna species)	Applies to 5.18 ha of ecosystem credit species habitat
	Moderate / Good_ Medium	0.83 ha (refer to Section 4.1.1 for list of fauna species)	Applies to 0.83 ha of ecosystem credit species habitat
	Moderate / Good_ Other	0.64 ha (refer to Section 4.1.1 for list of fauna species)	Applies to 0.64 ha of ecosystem credit species habitat
Sydney Blue Gum x Bangalay – Lilly Pilly moist forest in gullies and on sheltered slopes, southern Sydney Basin Bioregion (1245)	Moderate / Good	0.55 ha (refer to Section 4.1.1 for list of fauna species)	Applies to 0.55 ha of ecosystem credit species habitat
	Moderate / Good_ Poor	0.11 (refer to Section 4.1.1 for list of fauna species)	Applies to 0.11 ha of ecosystem credit species habitat
	Moderate / Good_ Other	0.22 ha (refer to Section 4.1.1 for list of fauna species)	Applies to 0.22 ha of ecosystem credit species habitat
Total impacts requiring offsets			**7.53 ha of threatened species habitat**

Transport's offset guideline identifies that a suitable offset option for the loss of 7.53 hectares of threatened fauna ecosystem-credit species habitat would be the provision of an area of suitable habitat on the basis of a 3:1 ratio. This offset option would therefore result in an offset area of 22.59 hectares for threatened fauna species habitat (see **Table 5-2**).

Table 5-2 TfNSW for NSW offset ratios and summary of proposal offset requirement

Impact Type	Offset ratio	Offset requirement
Loss of threatened fauna species	Offset area of habitat lost at a ratio of 3:1	22.59 hectares of ecosystem credit species habitat

5.1.1 Biodiversity offset strategy

The final offset for the proposal would be determined during detailed design and development of the offset package. During the detailed design phase, the proposal area may change from that assessed in this report which would result in a different offset requirement for the proposal than what is presented in this report. The details above represent an overview of the impacts that require consideration for offsetting. The appropriate offset mechanism for final impacts requiring offsets in accordance with Transport's policy will be determined following completion of detailed design.

6 Conclusion

Key biodiversity values

The study area comprises moderate to good condition native vegetation associated with two Plant Community Types (PCTs):

- Blackbutt - Turpentine - Bangalay moist open forest on sheltered slopes and gullies, southern Sydney Basin Bioregion (PCT 694)
- Sydney Blue Gum x Bangalay – Lilly Pilly moist forest in gullies and on sheltered slopes, southern Sydney Basin Bioregion (PCT 1245).

No threatened ecological communities (TEC) have been recorded in the study area, and these two PCTs are not associated with a TEC.

The study area provides suitable habitat for a range of threatened species listed under the (BC Act) and/or (EPBC Act) including:

- *Senna acclinis*
- *Rhodamnia rubescens*
- *Solanum celatum*
- Gang-gang Cockatoo
- Varied Sittella
- Little Lorikeet
- Swift Parrot
- Powerful Owl
- Large Bent-winged Bat – recorded in the study area (Jacobs, 2017)
- Little Bent-winged Bat – recorded in the study area (Jacobs, 2017)
- Grey-headed Flying-fox – recorded in the study area (Jacobs, 2017)
- Greater Glider.

Potential impacts

The total revised impact on native vegetation is around 7.53 hectares. This is a slight reduction of 0.04 hectares in the revised proposal footprint since the 2017 BAR.

The project would remove around 7.53 hectares of suitable habitat for threatened flora species *Senna acclinis*, *Solanum celatum* and *Rhodamnia rubescens*. Additional targeted surveys were conducted along the entire proposal footprint, and the proposed revised design areas, to search for any threatened flora species added to the threatened species legislation since the 2017 BAR. These surveys were conducted and confirmed that none of these threatened plant species are present.

Fauna injury or death has the greatest potential to occur during construction when vegetation clearing will occur and the extent of this impact will be proportionate to the extent of vegetation that is cleared. Indirect / operational impacts include increased habitat isolation and limited new edge effects. Invasion and spread of weeds, invasion and spread of pests, and invasion and spread of pathogens and disease are a risk with a proposal of this type. Noise, light and vibration will be increased during construction and operation.

The assessment of significance assessed under both the BC Act and EPBC Act concluded that the project is unlikely to significantly affect relevant threatened biodiversity values.

Mitigation measures

The mitigation measures outlined in the original BAR (Jacobs, 2017) remain adequate for the BAR addendum. Some minimisation of biodiversity impacts has occurred at the design stage, mitigation measures will need to be relied upon to lessen the potential ecological impacts of the proposal.

Mitigation measures are to be undertaken during the construction and operational phases. The Roads and Maritime *Biodiversity Guidelines: Protecting and managing biodiversity of RTA projects* (NSW Roads and Traffic Authority, 2011) identify a range of mitigation techniques to be applied and these techniques must be implemented during construction. These are outlined in **Annexure B**.

Biodiversity offsets

According to the TfNSW guideline for biodiversity offsets, a suitable offset for the loss of 7.53 hectares of threatened fauna species habitat would be a 3:1 ratio. This would result in an offset of 22.59 hectares for threatened fauna species habitat.

The final offset requirement and appropriate offsetting mechanism for the proposal would be determined during detailed design and development of the offset package.

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Annexure A – Assessments of Significance

Biodiversity Conservation Act 2016

The following assessments of significance are prepared in accordance with section 7.3 of the *Biodiversity Conservation Act 2016* (BC Act) and the associated guidelines (OEH 2018). The following species have been assessed:

Flora

- *Rhodamnia rubescens* (Scrub Turpentine)
- *Senna acclinis* (Rainforest Cassia)
- *Solanum celatum*

Fauna

- Gang-gang Cockatoo (*Callocephalon fimbriatum*)
- Varied Sittella (*Daphoenositta chrysoptera*)
- Little Lorikeet (*Glossopsitta pusilla*)
- Swift Parrot (*Lathamus discolor*)
- Powerful Owl (*Ninox strenua*)
- Grey-headed Flying-fox (*Pteropus poliocephalus*)
- Large Bentwing-bat (*Miniopterus orianae oceanensis*) and Little Bentwing-bat (*Miniopterus australis*) (grouped).

Rhodamnia rubescens (Scrub Turpentine)

Rhodamnia rubescens (Scrub Turpentine) has been recorded in numerous locations to the west of the study area. Verbal discussions with University of Wollongong ground-staff noted that the species was planted on the University campus (within the study area) during regeneration work in the mid-1990s. Nevertheless, the species was not recorded in plots or during other targeted threatened flora surveys in the original 2017 biodiversity assessment or in the 2022 targeted surveys. It is possible that any individuals previously present at the site have been lost by infection of Myrtle Rust (*Austropuccinia psidii*). Nevertheless, the species has strong associations with mapped PCTs in the study area, of which there is about 7.53ha of suitable habitat within the impact area.

Rhodamnia rubescens is a shrub or small tree to 25 m high with bark reddish brown, fissured bark and densely tomentose young stems. It occurs in littoral, warm temperate and subtropical rainforest and wet sclerophyll forest in coastal areas from Batemans Bay in the south, to Bundaberg in Queensland. Populations of R*. rubescens* typically occur in coastal regions and occasionally extend inland onto escarpments up to 600 m a.s.l. in areas with rainfall of 1,000-1,600 mm (DPI, 2021; NSW Scientific Committee, 2019).

It flowers in late winter through to spring, with a peak in October, and fruits typically begin to appear in December (NSW Scientific Committee, 2019). The species is highly susceptible to infection by Myrtle Rust (*Austropuccinia psidii*) which causes dieback of all parts of the plant. The continued decline of mature plants and lack of successful regeneration threaten the long-term viability of *R. rubescens* in the wild (NSW Scientific Committee, 2019).

A. In the case of a threatened species, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction

The number of distinct populations of *R. rubescens* is unknown but is expected to be large given the wide distribution of the species (NSW Scientific Committee, 2019). Little is known about the reproductive ecology of the species (Snow, 2007), yet they are known to resprout from rootstock after fire and produce suckers (Benson & McDougall, 1998). Seed dispersal is via birds, bees and water movement with germination taking about 1–2 months (Beardsell, Obrien, Williams, Knox, &

Calder, 1993; Benson & McDougall, 1998). The species is expected to have a generation length of at least 30–40 years (Floyd, 2008).

There are several recent records of the species within the locality, most of which are in protected vegetated areas including Mt Keira and Illawarra State Conservation Area. Considering the proximity of these records and the methods of seed dispersion, they are likely part of the local population.

Considering *R. rubescens* was not recorded in the study area in the 2017 and 2022 surveys and there are anecdotal historical records of the species being planted in the area within the length of a single generation, it is considered possible that any individuals have been lost to Myrtle Rust (however presence of Myrtle Rust is not confirmed) and are no longer present. Regenerating populations of the species rarely survive infection, with seedlings/suckers often killed by Myrtle Rust and seed based recruitment limited (NSW Scientific Committee, 2019).

As such, it is unlikely that a viable local population is present within the impact area. Nevertheless, the works would directly remove any potential regeneration or presence in the seed bank by the direct impact to 7.53ha of suitable habitat.

As such, the proposal is not considered likely to have an adverse effect on the life cycle of a viable local population of the *R. rubescens*.

B. In the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:

i. Is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

ii. Is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction

Not applicable.

C. In relation to the habitat of a threatened species or ecological community:

i. The extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and

ii. Whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and

iii. The importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species or ecological community in the locality

The proposal would remove 7.53ha of suitable habitat (in varying conditions) which comprises about 0.86ha of PCT 1245 and 6.32ha of PCT 694. This would comprise the removal of about 0.05% and 0.4% of PCT 1245 and PCT 694 within the 10km locality, respectively. This patch of vegetation is generally located on the banks of the creekline traversing the site.

Habitat fragmentation per se relates to the physical dividing up of once continuous habitats into separate smaller ‘fragments’ (Fahrig, 2002). Isolation relates to the distance between habitat patches. There will be some habitat loss but the proposal will not lead to an increase in landscape scale fragmentation. A minor increase in habitat isolation will occur, as the remaining habitats within the study area will become separated by a greater distance (approximately 150 metres between habitat patches). The patch of suitable habitat remaining (PCT 1245) would be reduced by the proposal, thus increasing fragmentation between patches on the north and south side of the highway. Nevertheless, the distance between the isolated southern patch and the nearby bushland at Mt Keira would remain at about 200-400m, separated by the residential areas of Binda and Dallas Streets. If the species is present in the impact area, the fragmentation would further increase edge effects on the patch of suitable habitat.

The PCTs in the impact area provide suitable habitat for the species, however the condition of the vegetation varies in its habitat value. Some patches, particularly on the east of the existing

intersection of Mt Ousley Rd and the Pacific Highway, are of poor condition (highly infested with Lantana) and are of low habitat value. As such, moderate to good quality patches are considered to be of higher habitat value, nevertheless as it considered unlikely that a viable local population is present due to the lack of known plants and the possibility of Myrtle Rust, the habitat across the impact area is considered to be of low importance for the long-term survival of the species in the locality.

D. Whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly)

Areas of outstanding biodiversity value refers only to those areas of land listed in the register managed by DPE (DPE, 2022a). This question is not applicable, as no critical habitat has been listed for *R. rubescens* and there are no other areas of outstanding biodiversity value in the locality.

E. Whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process.

A KTP is a process that threatens, or may have the capability to threaten, the survival or evolutionary development of species, population or ecological community. Key threatening processes are listed under the BC Act and at the present, there are currently 39 listed KTPs.

Of the listed KTPs, the only KTP relevant to *R. rubescens* that would be increased by the proposal is clearing of native vegetation and introduction and establishment of Exotic Rust Fungi of the order Pucciniales pathogenic on plants of the family Myrtaceae. The proposal would require the clearing of about 7.53ha of suitable habitat (in varying conditions). This would reduce localised species diversity, increase fragmentation and increase the risk of weeds. It is unconfirmed whether Myrtle Rust is present in the impact area, however considering the presence of the creek (as a transport route for the fungus) and extent of the fungus in developed areas of the east coast (NSW Scientific Committee, 2019), presence is possible. Machinery associated with vegetation clearance and subsequent construction has the potential to transmit and move Myrtle Rust (another other pathogens) within the site.

Conclusion

Rhodamnia rubescens was not recorded in the study area in the 2017 and 2022 surveys however, there are nearby records and anecdotal historical records of the species being planted in the University campus area. The PCTs in the impact area provide suitable habitat for the species, however the condition of the vegetation varies in its habitat value with areas of high weed incursion having lower habitat value.

The lack of recorded *R. rubescens* individuals in the surveys indicates it is unlikely the site supports a viable population, and any historically planted plants may have been lost to Myrtle Rust (however presence of Myrtle Rust is not confirmed).

If the species is present in the seedbank, the material would be lost during construction. Additionally, the loss of habitat would limit future regeneration of the species in the remaining vegetation.

However, considering the above assessment it is unlikely that the proposal would significantly impact *R. rubescens* or its habitat.

Senna acclinis (Rainforest Cassia)

One small natural population of *Senna acclinis* exists along with several planted specimens above the statue along the Ken Ausburn Walking track on university land approximately 700 metres to the south west of the study area (Burgess, 2008). The habitat in this area is regenerating PCT 694 (Blackbutt - Turpentine - Bangalay moist open forest on sheltered slopes and gullies, southern Sydney Basin Bioregion) which is also the dominant habitat type in the study area. Planted specimens are also known to occur throughout an area of bushland on the university campus off Robson Road that has been heavily revegetated. All plants have suffered heavily from grazing by feral deer (Burgess, 2008). The plants along the Ken Ausburn Walking track were inspected as a reference site for this survey in order to familiarise the observers with the characteristics of this species.

No *Senna acclinis* plants were found in the study area during the 2017 or 2022 surveys. However, a population of *Senna acclinis* exists near to the study area in similar habitat to that which is present in the study area. *Senna acclinis* has been planted in the bushland on the university grounds by bush regenerators as part of works according to the university Vegetation Management Plan (Burgess, 2008). The habitat is subject to heavy deer grazing which may mean no *Senna acclinis* plants were present above ground in the study area at the time of survey. Due to the presence of suitable habitat in the study area in the form of PCT 694 and PCT 1245 and a known population nearby, this species is considered moderately likely to occur in the study area and may be present as seed in the soil seedbank.

The factors to be considered when determining whether an action, development or activity is likely to significantly affect threatened species or their habitats are outlined below:

A. In the case of a threatened species, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction

Senna acclinis is restricted to the central and northern coastal forests of New South Wales, and Queensland. In New South Wales it is chiefly recorded from subtropical rainforest remnants but is now rare owing to clearing of habitats (Williams, 1998). *Senna acclinis* is often known to occur as a ‘gap phase’ shrub meaning it occurs in disturbed areas where there has been disturbance such as tree fall or past clearing. It is known to grow on the edges of dense vegetation types such as the margins of subtropical, littoral and dry rainforests where there is sufficient sunlight (OEH, 2014). Disturbance appears to be a key component of the lifecycle of *Senna acclinis* and this species has been recorded as establishing (from the soil seedbank) on previously unoccupied sites after the disturbance caused by weed treatment (Lymburner et al., 2006).

Flowering occurs in spring and summer and the fruit is ripe in summer and autumn (OEH, 2014). Although *Senna acclinis* appears to be self-compatible, it is dependent on a pool of pollinators (generally native bees) capable of removing the generally indehiscent pollen through buzz pollination (Williams, 1998). *Senna acclinis* seed dispersal mutualisms are not known but the dry seeds are thought to be dispersed by ants that are unlikely to disperse seeds over large distances but they will potentially disperse seeds to microsites that are advantageous for germination and seedling recruitment (Williams, 1998).

Senna acclinis was not recorded within the study area during the survey. However, suitable habitat for this species is present and there is a known population within 700 metres of the study area. Pollinators such as native bees are likely to be common in the study area due to the presence of native habitat as are seed dispersal vectors such as ants. Therefore, the study area is likely to possess the required pollination and seed dispersal mechanisms for this species to complete its lifecycle. It is considered moderately likely that *Senna acclinis* is present in the soil-stored seedbank and that the habitat within the study area is not currently conducive to the presence of above ground plants due to the heavy shade cast by the canopy and dense rainforest midstorey that dominates much of the PCTs in the study area.

The proposal will result in disturbance to the potential habitat of *Senna acclinis* within the study area through road construction and associated activities that will result in vegetation removal, soil removal and soil disturbance. The proposal has the potential to impact on the lifecycle of *Senna acclinis* as follows:

- Habitat for insects responsible for pollination and seed dispersal will be removed but substantial habitat for the pollinators and seed dispersers will remain in the study area suggesting that pollination and seed dispersal could continue during and after the proposal is built.
- If *Senna acclinis* is present in the soil seedbank then it is possible that the disturbance created by the vegetation removal and soil disturbance could create suitable conditions for the germination and establishment of *Senna acclinis* at newly created habitat edges. The disturbance may be beneficial for this species. The suitability of the habitat may increase due to the removal of the tree canopy and midstorey layer, which would result in increased light and soil disturbance triggering seed germination.
- If *Senna acclinis* is present in the soil seedbank then it is possible that it would be removed from site with the soil (if the soil were taken off site) and germination of that seed would be prevented.

Overall, as the presence of *Senna acclinis* within the study area is based on likely presence of seed in the topsoil, the lifecycle of this species is not anticipated to be greatly affected by the proposal. Insect pollinators and seed dispersal vectors will remain in the study area after the proposal is built in sufficient numbers to ensure the reproduction of *Senna acclinis* could occur. Any seed that is possibly present in the soil seedbank may be triggered to germinate by vegetation removal and soil disturbance creating suitable edge habitats. The action proposed is not considered likely to have an adverse effect on the life cycle of *Senna acclinis* such that a viable local population of the species is likely to be placed at risk of extinction.

- In the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:

i. Is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

ii. Is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction

Not applicable.

- In relation to the habitat of a threatened species or ecological community:

i. The extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and

ii. Whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and

iii. The importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species or ecological community in the locality

Approximately 7.53 ha of habitat that is potentially suitable for *Senna acclinis* will be removed by the proposal. This includes approximately 0.86ha of PCT 1245 and 6.32ha of PCT 694. The extent of habitat removal for *Senna acclinis* represents approximately 0.4% of similar habitats within the locality. Approximately 1,597 ha of suitable Blackbutt forest habitat (PCT 694) is mapped in the locality by (DPIE, 2016). The habitats within the study area are suitably connected to the remaining habitat in the locality (ie distances of less than 500 m between patches) and pollination can be expected to occur between these patches. As such, the local occurrence of suitable habitat is large.

Habitat fragmentation per se relates to the physical dividing up of once continuous habitats into separate smaller ‘fragments’ (Fahrig, 2002). Due to the nature of the proposal, it may potentially result in an increase to landscape scale fragmentation for habitat for *Senna acclinis* due to the design of the new intersection. The current habitat is likely to be divided up into smaller fragments separated by a barrier posed by the new roadways. The roadways between the fragments may be up to 20 metres wide. In insect-pollinated plants, pollen movement, rather than movement of seeds, is generally the main component of gene flow (Ennos, 1994; Fenster, 1991). The foraging range of native solitary bees is up to a few hundred metres (Goulson, 2003) so therefore pollinators may be able to move between the newly created patches and gene flow would be maintained. Nevertheless, habitat fragmentation will occur.

The habitat within the study area may be considered important for *Senna acclinis* as it is at the southernmost limit of this species' range. The habitat where the naturally occurring population is located above the statue along the Ken Ausburn Walking track on university land approximately 700 metres to the south west of the study area is important for this species in the locality. If *Senna acclinis* is present in the study area, the habitat would be important for the long-term survival of the species in the locality.

- Whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly)

Areas of outstanding biodiversity value refers only to those areas of land listed in the register managed by DPE (DPE, 2022a). This question is not applicable, as no critical habitat has been listed for *Senna acclinis* and there are no other areas of outstanding biodiversity value in the locality.

- Whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process.

A KTP is a process that threatens, or may have the capability to threaten, the survival or evolutionary development of species, population or ecological community. Key threatening processes are listed under the BC Act and at the present, there are currently 39 listed KTPs.

Of the listed KTPs, the only KTP relevant to *Senna acclinis* that would be increased by the proposal is clearing of native vegetation. The proposal would require the clearing of about 7.53ha of suitable habitat (in varying conditions). This would reduce localised species diversity, increase fragmentation and increase the risk of weeds.

Conclusion

No *Senna acclinis* plants were found in the study area during the survey. However, one small natural population of *Senna acclinis* exists along with several planted specimens above the statue along the Ken Ausburn Walking track on university land approximately 700 metres to the south west of the study area. The habitat in this area is regenerating PCT 694, which is also the dominant habitat type in the study area. The habitat in the study area is subject to heavy deer grazing which may mean no *Senna acclinis* plants were present above ground in the study area at the time of 2017 and 2022 surveys. Due to the presence of suitable habitat in the study area in the form of PCT 694 and PCT 1245 and a known population nearby, this species is considered moderately likely to occur in the study area and may be present as seed in the soil seedbank.

The impacts of the proposal to *Senna acclinis* would be limited to loss of some potentially suitable habitat. Seed from this species may be stored in the soil seedbank and this could be lost due to the proposal. The main points of consideration are as follows:

- Habitat for insects responsible for pollination and seed dispersal will be removed but substantial habitat for the pollinators and seed dispersers will remain in the study area suggesting that pollination and seed dispersal could continue during and after the proposal is built. If *Senna acclinis* is present in the soil seedbank then it is possible that the disturbance created by the vegetation removal and soil disturbance could create suitable conditions for the germination and establishment of *Senna acclinis* at newly created habitat edges. The disturbance created by the proposal may create positive conditions for germination of *Senna acclinis*.
- The extent of habitat removal for *Senna acclinis* represents approximately 0.4% of similar habitats within the locality.
- The proposal may potentially result in an increase to landscape scale fragmentation for habitat for *Senna acclinis* due to the design of the new intersection but gene exchange may still occur between newly created patches.
- The habitat within the study area may be considered important for *Senna acclinis* in the locality as it is at the southernmost limit of this species' range.
- No areas of outstanding biodiversity values will be affected.

- The proposal would not interfere with the management sites identified for the recovery of *Senna acclinis*.
- The only KTP relevant to *Senna acclinis* that would be increased by the proposal is clearing of native vegetation, but the proposal will not contribute to any of the other key threats to this species.

After consideration of the factors above, an overall conclusion has been made that the proposal is unlikely to result in a significant effect to *Senna acclinis*.

Solanum celatum

Solanum celatum is restricted to an area from Wollongong to just south of Nowra, and west to Bungonia. The majority of records of this species were made prior to 1960. However, it is likely that this species is overlooked during surveys and may not be present above ground unless conditions are optimal. *Solanum celatum* is known to grow in rainforest clearings, edges of rainforest and wet sclerophyll forest and disturbed margins. *Solanum celatum* is a gap phase shrub and only likely to be present above ground after a disturbance event.

No *Solanum celatum* plants were found in the study area during the 2017 survey. However, suitable habitat is present in the form of PCT 694 and PCT 1245. This species is considered moderately likely to occur in the study area and may be present as seed in the soil seedbank.

The factors to be considered when determining whether an action, development or activity is likely to significantly affect threatened species or their habitats are outlined below:

A. In the case of a threatened species, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction

Solanum celatum is known to grow in rainforest clearings, edges of rainforest and wet sclerophyll forest and disturbed margins. *Solanum celatum* is a gap phase shrub and only likely to be present above ground after a disturbance event. Flowering occurs from August to October and fruit is produced from December to January. *Solanum celatum* is a fire sensitive obligate seeder, with adults plants killed by fire and recruitment occurring from a soil stored seed bank (NSW Scientific Committee, 2003b). Like other species of Solanum, Solanum celatum can be assumed to be pollinated by native bees or introduced honeybees. The fruit and seed are likely to be bird dispersed.

Solanum celatum was not recorded within the study area during the survey. However, suitable habitat for this species is present. Pollinators such as native and introduced bees are likely to be common in the study area due to the presence of native habitat as are seed dispersal vectors such as fruit eating birds. Therefore, the study area is likely to possess the required pollination and seed dispersal mechanisms for this species to complete its lifecycle. Taking a precautionary approach, it is moderately likely that *Solanum celatum* is present in the soil-stored seedbank and that the habitat within the study area is not currently conducive to the presence of above ground plants due to the heavy shade cast by the canopy and dense rainforest midstorey that dominates much of the PCTs in the study area. This gap phase shrub needs an open canopy and may require fire to germinate (fire has not occurred in the study area lately).

The proposal will result in disturbance to the potential habitat of *Solanum celatum* through road construction and associated activities that will result in vegetation removal, soil removal and soil disturbance. The proposal has the potential to impact on the lifecycle of *Solanum celatum* as follows:

- Habitat for insects responsible for pollination and birds responsible for seed dispersal will be removed but substantial habitat for the pollinators and seed dispersers will remain in the study area suggesting that pollination and seed dispersal could continue during and after the proposal is built.
- If *Solanum celatum* is present in the soil seedbank then it is possible that the disturbance created by the vegetation removal and soil disturbance could create suitable conditions for the germination and establishment of *Solanum celatum* at newly created habitat edges. The disturbance may be beneficial for this species. The suitability of the habitat may increase due to

the removal of the tree canopy and midstorey layer, which would result in increased light and soil disturbance triggering seed germination.

- If *Solanum celatum* is present in the soil seedbank then it is possible that it would be removed from site with the soil (if the soil were taken off site) and germination of that seed would be prevented.

Overall, as the presence of *Solanum celatum* within the study area is based on likely presence of seed in the topsoil, the lifecycle of this species is not anticipated to be greatly affected by the proposal. Pollinators and seed dispersal vectors will remain in the study area after the proposal is built in sufficient numbers to ensure the reproduction of *Solanum celatum* could occur. Any seed that is possibly present in the soil seedbank may be triggered to germinate by vegetation removal and soil disturbance creating suitable edge habitats. The action proposed is not considered likely to have an adverse effect on the life cycle of *Solanum celatum* such that a viable local population of the species is likely to be placed at risk of extinction.

B. In the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:

i. Is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

ii. Is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction

Not applicable.

C. In relation to the habitat of a threatened species or ecological community:

i. The extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and

ii. Whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and

iii. The importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species or ecological community in the locality

Approximately 7.53 ha of habitat that is potentially suitable for *Solanum celatum* will be removed by the proposal. This includes approximately 0.86ha of PCT 1245 and 6.32ha of PCT 694. The extent of habitat removal for *Solanum celatum* represents approximately 0.4% of similar habitats within the locality. Approximately 1,597 ha of suitable Blackbutt forest habitat is mapped in the locality by (DPIE, 2016). The habitats within the study area are suitably connected to the remaining habitat in the locality (i.e., distances of less than 500 m between patches) and pollination and seed dispersal can be expected to occur between these patches. As such, the local occurrence of suitable habitat is large.

Habitat fragmentation per se relates to the physical dividing up of once continuous habitats into separate smaller ‘fragments’ (Fahrig, 2002). Due to the nature of the proposal, it may potentially result in an increase to landscape scale fragmentation for habitat for *Solanum celatum* due to the design of the new intersection. The current habitat is likely to be divided up into smaller fragments separated by a barrier posed by the new roadways. The roadways between the fragments may be up to 20 metres wide. In insect-pollinated plants, pollen movement, rather than movement of seeds, is generally the main component of gene flow (Ennos, 1994, Fenster, 1991). The foraging range of native solitary bees is up to a few hundred metres (Goulson, 2003) so therefore pollinators may be able to move between the newly created patches and gene flow would be maintained. Nevertheless, habitat fragmentation will occur.

The habitat within the study area may be considered important for *Solanum celatum* as this species is not known from other regions. If *Solanum celatum* is present in the study area, the habitat would be important for the long-term survival of the species in the locality.

D. Whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly)

Areas of outstanding biodiversity value refers only to those areas of land listed in the register managed by DPE (DPE, 2022a). This question is not applicable, as no critical habitat has been listed for *Solanum celatum* and there are no other areas of outstanding biodiversity value in the locality.

E. Whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process

A KTP is a process that threatens, or may have the capability to threaten, the survival or evolutionary development of species, population or ecological community. Key threatening processes are listed under the BC Act and at the present, there are currently 39 listed KTPs.

Of the listed KTPs, the only KTP relevant to *Solanum celatum* that would be increased by the proposal is clearing of native vegetation. The proposal would require the clearing of about 7.53ha of suitable habitat (in varying conditions). This would potentially reduce localised species diversity (by loss of seed bank), increase fragmentation and increase the risk of weeds.

Conclusion

No *Solanum celatum* plants were found in the study area during the survey. Due to the presence of suitable habitat in the study area in the form of PCT 694 and PCT 1245, this species is considered moderately likely to occur and may be present as seed in the soil seedbank.

The impacts of the proposal to *Solanum celatum* would be limited to loss of some potentially suitable habitat. Seed from this species may be stored in the soil seedbank and this could be lost due to the proposal. The main points of consideration are as follows:

- Habitat for insects responsible for pollination and birds responsible for seed dispersal will be removed but substantial habitat for the pollinators and seed dispersers will remain in the study area suggesting that pollination and seed dispersal could continue during and after the proposal is built.
- If *Solanum celatum* is present in the soil seedbank then it is possible that the disturbance created by the vegetation removal and soil disturbance could create suitable conditions for the germination and establishment of *Solanum celatum* at newly created habitat edges. The disturbance created by the proposal may create positive conditions for germination of *Solanum celatum*.
- The extent of habitat removal for *Solanum celatum* represents approximately 0.4% of similar habitats within the locality.
- The proposal may potentially result in an increase to landscape scale fragmentation for habitat for *Solanum celatum* due to the design of the new intersection but gene exchange may still occur between newly created patches.
- The habitat within the study area may be considered important for *Solanum celatum* in the locality but this cannot be determined as plants were not found on site.
- No areas of outstanding biodiversity value will be affected.
- The only KTP relevant to *Solanum celatum* that would be increased by the proposal is clearing of native vegetation but the proposal will not contribute to any of the other key threats to this species.

After consideration of the factors above, an overall conclusion has been made that the proposal is unlikely to result in a significant effect to *Solanum celatum*.

Gang-gang Cockatoo (Callocephalon fimbriatum)

The Gang-gang Cockatoo is considered highly likely to utilise the forests habitats in the study area for foraging when the eucalypts are seeding. It is known to use PCT 694 and PCT 1245 as habitat and there are several records of this species from the Illawarra coastal plain and plateau. This species is considered unlikely to nest in the study area, as it prefers old growth forest and woodland with hollows of a sufficient size (>10 cm in size) for nesting.

The factors to be considered when determining whether an action, development or activity is likely to significantly affect threatened species or their habitats are outlined below:

A. In the case of a threatened species, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction

The ecology of the Gang-gang Cockatoo is poorly understood as there are no detailed studies on this species. The Gang-gang Cockatoo inhabits eucalypt open forests and woodlands with an acacia understorey. In summer it lives in moist highland forest types, and in winter it moves to more open types at lower elevations. This species requires tree hollows for nesting and sometimes for roosting. Eucalypt trees and acacia shrubs are used for foraging. The Gang-Gang Cockatoo nests in hollows in the trunks, limbs or dead spouts of tall living trees, especially eucalypts, often near water. A clutch of usually two eggs is laid in spring to summer. The incubation period is about four weeks, the nestling period seven to eight weeks, and the post-fledging dependence period lasts at least four to six weeks. The Gang-gang Cockatoo feeds on seeds obtained in trees and shrubs, mostly from eucalypts and wattles, though it eats some seeds of introduced trees and shrubs around human settlements in winter, and also insect larvae (galls, sawflies). The Gang-gang Cockatoo apparently breeds semi-colonially where densities are high. It is thought to show high fidelity to a selected nest hollow (NSW Scientific Committee, 2008).

The proposal would not affect breeding habitat for this species, as no suitable hollows are present in the study area and this species breeds in higher altitude forests away from the coast. Suitable winter foraging habitat is present in the PCTs and this species is likely to forage on the seeds of eucalypts and acacias throughout the study area. Similar foraging habitat is extensive along the escarpment so the habitat within the study area is not considered a limiting foraging resource. As such, the lifecycle of this species is unlikely to be greatly affected by the proposal.

The proposal is not considered likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction.

B. In the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:

i. Is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

ii. Is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction

Not applicable.

C. In relation to the habitat of a threatened species or ecological community:

i. The extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and

ii. Whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and

iii. The importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species or ecological community in the locality

Habitat removal is limited to potential foraging habitat and the extent to which habitat is likely to be removed or modified as a result of the proposal is as follows:

- 7.53 ha of habitat removal from PCTs
- 4.88 ha of habitat removal from planted vegetation

This impact represents approximately 0.4% of similar habitats within the locality. Approximately 1,597 ha of suitable Blackbutt forest habitat is mapped in the locality (DPIE, 2016).

Due to its nature, the proposal will result in the breaking apart of some habitat blocks into smaller portions. The new roadways and roundabouts will create a hard barrier to movement for some species but the Gang-gang Cockatoo is likely to be less affected. The Gang-gang Cockatoo is highly mobile (a partial or altitudinal migrant). The habitat of the Gang-gang Cockatoo in eastern NSW has been fragmented but the Gang-gang Cockatoo is highly mobile and can disperse or migrate tens of kilometres, so population fragmentation is unlikely except where populations are isolated by extensive suburbia (as in northern Sydney) (NSW Scientific Committee, 2008). The level of fragmentation caused by the proposal will not have an impact on the ability of the Gang-gang Cockatoo to move through the landscape.

There is over 1,000 hectares of high quality foraging habitat for the Gang-gang Cockatoo mapped in the locality. The remaining escarpment and plateau provides even greater areas of habitat. The study area forms a small portion of the available local foraging resource and would not be considered a limiting resource for this species. As such, the habitats in the study area are not considered important to the long-term survival of the Gang-gang Cockatoo in the locality.

D. Whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly)

Areas of outstanding biodiversity value refers only to those areas of land listed in the register managed by DPE (DPE, 2022a). This question is not applicable, as no critical habitat has been listed for Gang-gang Cockatoo and there are no other areas of outstanding biodiversity value in the locality.

E. Whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process

A KTP is a process that threatens, or may have the capability to threaten, the survival or evolutionary development of species, population or ecological community. Key threatening processes are listed under the BC Act and at the present, there are currently 39 listed KTPs.

Of the listed KTPs, the only KTP relevant to Gang-gang Cockatoo that would be increased by the proposal is clearing of native vegetation. The proposal would require the clearing of about 7.53ha of suitable native winter foraging habitat.

Conclusion

The proposal would not affect breeding habitat for the Gang-gang Cockatoo. Additionally, the study area does not contain any limiting winter foraging grounds. As such, the impacts of the proposal to the Gang-gang Cockatoo would be limited to loss of some potential foraging habitat caused by direct clearing or damage to vegetation during the construction phase. The main points of consideration are as follows:

- No impacts to the life cycle of the Gang-gang Cockatoo are anticipated as a result of the proposal.
- The Gang-gang Cockatoo would suffer a small reduction in extent of PCTs suitable as foraging habitat from the proposal of around 7.53 ha. This is a small proportional impact. The impact to plantings and urban trees that may provide suitable foraging habitat for the Gang-gang Cockatoo is around 4.88 hectares
- Importantly, the proposal would not result in any further substantial landscape scale fragmentation of habitat for the Gang-gang Cockatoo.

- High quality habitat for the Gang-gang Cockatoo is not mapped in the study area. As such, the habitats in the study area are not considered important to the long-term survival of the Gang-gang Cockatoo in the locality.
- No areas of outstanding biodiversity value will be affected.
- The only KTP relevant to the Gang-gang Cockatoo that would be increased by the proposal is clearing of native vegetation but the proposal will not contribute to any of the other key threats to this species.

After consideration of the factors above, an overall conclusion has been made that the proposal is unlikely to result in a significant effect to the Gang-gang Cockatoo.

Varied Sittella (*Daphoenositta chrysoptera*)

The Varied Sittella is considered likely to utilise the forests habitats in the study area for foraging. It is known to use PCT 694 and PCT 1245 as habitat.

The factors to be considered when determining whether an action, development or activity is likely to significantly affect threatened species or their habitats are outlined below:

A. In the case of a threatened species, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction

The Varied Sittella inhabits eucalypt forests and woodlands, especially those containing rough-barked species and mature smooth-barked gums with dead branches, mallee and Acacia woodland. Feeds on arthropods gleaned from crevices in rough or decorticating bark, dead branches, standing dead trees and small branches and twigs in the tree canopy. Builds a cup-shaped nest of plant fibres and cobwebs in an upright tree fork high in the living tree canopy, and often re-uses the same fork or tree in successive years.

Suitable habitat for the Varied Sittella is present in the study area within PCT 694 and PCT 1245. The Varied Sittella is considered moderately likely to forage in the study area and may breed in the habitat. The habitat in the study area is considered likely to be suitable for this species to complete its lifecycle with suitable foraging, roosting and breeding habitat present. The removal of habitat will affect the lifecycle of this species if it is present. However, due to the abundance of aggressive birds such as Noisy Miners, and adjacent urbanisation, the quality of the habitat is not considered high. Any birds that may use the habitat in the study area would also likely use adjacent habitats along the escarpment that are of higher quality. After the proposal has been built there will be sufficient habitat left in the study area for this species to complete its lifecycle and the habitat quality of remaining patches is considered likely to remain in a similar state to pre-construction conditions.

The proposal is not considered likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction.

B. In the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:

i. Is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

ii. Is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction

Not applicable.

C. In relation to the habitat of a threatened species or ecological community:

i. The extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and

ii. Whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and

iii. The importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species or ecological community in the locality

The extent to which habitat is likely to be removed or modified because of the proposal is as follows:

- 7.53 ha of habitat removal from PCTs
- 4.88 ha of habitat removal from planted vegetation

This impact represents approximately 0.4% of similar habitats within the locality. Approximately 1,597 ha of suitable Blackbutt forest habitat is mapped in the locality (DPIE, 2016).

The apparent decline in the populations of the Varied Sittella has been attributed to declining habitat cover and quality and the sedentary nature of the Varied Sittella makes cleared land a potential barrier to movement (NSW Scientific Committee, 2010). Survival and population viability are sensitive to habitat isolation, reduced patch size and habitat simplification, including reductions in tree species diversity, tree canopy cover, shrub cover, ground cover, logs, fallen branches and litter (NSW Scientific Committee, 2010). The proposal will result in local fragmentation of the habitats within the study area. However, the distances between the fragments will be around 20 metres and this is not likely to be a great enough distance to prevent the Varied Sittella from dispersing between habitat patches. Importantly, the proposal would not result in any further substantial landscape scale fragmentation of habitat.

High quality habitat for the Varied Sittella is not mapped in the study area and the study area only forms a very small proportion of the habitat available to this species in the local area. High quality habitats exist in the adjoining escarpment and plateau area and these are likely to be important for this species. The habitats in the study area are not considered to be a limiting resource for the Varied Sittella and are not considered important to the long-term survival of the Varied Sittella in the locality.

D. Whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly)

Areas of outstanding biodiversity value refers only to those areas of land listed in the register managed by DPE (DPE, 2022a). This question is not applicable, as no critical habitat has been listed for Varied Sittella and there are no other areas of outstanding biodiversity value in the locality.

E. Whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process

A KTP is a process that threatens, or may have the capability to threaten, the survival or evolutionary development of species, population or ecological community. Key threatening processes are listed under the BC Act and at the present, there are currently 39 listed KTPs.

Of the listed KTPs, the only KTP relevant to Varied Sittella that would be increased by the proposal is clearing of native vegetation, loss of hollow-bearing trees, and removal of dead wood and dead trees (NSW Scientific Committee, 2010). The proposal would require the clearing of about 7.53ha of suitable native foraging habitat. The latter two KTPs relate to the requirement of habitat complexity requirements of the species. The apparent decline has been attributed to declining habitat cover and quality including logs, fallen branches, dead branches and standing dead trees which support arthropods as a food source.

Conclusion

The impacts of the proposal to the Varied Sittella would be limited to loss of some potential foraging, roosting and breeding habitat caused by direct clearing or damage to vegetation during the construction phase. The main points of consideration are as follows:

- Minor impacts to the life cycle of the Varied Sittella are anticipated as a result of the proposal. This habitat contains the requisite features for this species to complete its lifecycle and some

habitat will be removed. However, the habitat is not limiting and the impact is considered likely to be low.

- The Varied Sittella would suffer a small reduction in extent of PCTs suitable as foraging habitat from the proposal of around native 7.53 ha. This is a small proportional impact. The impact to plantings and urban trees that may provide suitable foraging habitat for the Varied Sittella is around 4.88 hectares.
- Some localised habitat fragmentation will occur due to the proposal but this species is still expected to be able to move between habitat patches. Importantly, the proposal would not result in any further substantial landscape scale fragmentation of habitat for the Varied Sittella.
- High quality habitat for the Varied Sittella is not mapped in the study area. As such, the habitats in the study area are not considered important to the long-term survival of the Varied Sittella in the locality. The extensive areas of habitat along the escarpment are considered more important for this species' persistence in the locality.
- No areas of outstanding biodiversity value will be affected.
- The KTPs relevant to the Varied Sittella that would be increased by the proposal is clearing of native vegetation, loss of hollow-bearing trees, and removal of dead wood and dead trees, but the proposal will not contribute to any of the other key threats to this species.

After consideration of the factors above, an overall conclusion has been made that the proposal is unlikely to result in a significant effect to the Varied Sittella.

Little Lorikeet (*Glossopsitta pusilla*)

The Little Lorikeet is considered likely to utilise the forests habitats in the study area for foraging and potentially breeding. It is known to use PCT 694 and PCT 1245 as habitat so is considered moderately likely to occur in the study area.

The factors to be considered when determining whether an action, development or activity is likely to significantly affect threatened species or their habitats are outlined below:

A. In the case of a threatened species, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction

The distribution of the Little Lorikeet extends from just north of Cairns, around the east coast of Australia, to Adelaide. In New South Wales Little Lorikeets are distributed in forests and woodlands from the coast to the western slopes of the Great Dividing Range, extending westwards to the vicinity of Albury, Parkes, Dubbo and Narrabri (Royal Australian Ornithologists Union, 2003). Little Lorikeets are generally considered to be nomadic (Higgins, 1999) and forage mainly on flowers, nectar and fruit. The breeding biology of Little Lorikeets is little known however studies indicate that nest hollows are located at heights of between 2 m and 15 m, mostly in living, smooth-barked eucalypts, and hollow openings are approximately 3 cm in diameter (Courtney and Debus, 2006).

The habitats within the study area contain suitable foraging and breeding habitat for the Little Lorikeet. As such, the study area contains the requisite features for this species to complete its lifecycle with suitable foraging, roosting and breeding habitat present. However, this species is a large scale nomad and is unlikely to remain in the study area in a sedentary manner for any length of time. The most likely occurrence of this species in the study area would be when the eucalypts are flowering and a significant blossom resource is present. The presence of potential breeding habitat is assumed based on the presence of hollow-bearing trees and it is not known whether this species breeds in the area. Due to the general lack of records from the locality, it is unlikely that this species is a breeding resident.

The removal of habitat will affect the lifecycle of this species if it is present. However, due to the abundance of aggressive birds such as Noisy Miners, and adjacent urbanisation, the quality of the habitat is not considered high. Any birds that may use the habitat in the study area would also likely use adjacent habitats along the escarpment that are of higher quality. After the proposal has been built there will be sufficient habitat left in the study area for this species to complete its

lifecycle and the habitat quality of remaining patches is considered likely to remain in a similar state to pre-construction conditions.

The proposal is not considered likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction.

B. In the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:

i. Is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

ii. Is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction

Not applicable.

C. In relation to the habitat of a threatened species or ecological community:

i. The extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and

ii. Whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and

iii. The importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species or ecological community in the locality

As a specialist nectarivore dependent on flowering eucalypts, Little Lorikeets are vulnerable to the loss of quantity and quality of key forage tree species. As a large-scale nomad, it has the ability to cover vast areas of its range, seeking suitable flowering eucalypt habitat. The species is a very rare occasional visitor to the region and may utilise trees in the study area for foraging intermittently when no other suitable resources are available. The Little Lorikeet would suffer a small reduction in extent of PCTs suitable as foraging habitat from the proposal of around 7.53 ha. This is a small proportional impact of approximately 0.4% of similar habitats within the locality. Approximately 1,597 ha of suitable Blackbutt forest habitat is mapped in the locality (DPIE, 2016). The impact to plantings and urban trees that may provide suitable foraging habitat for the Little Lorikeet is around 7.53 hectares. Up to 19 hollow-bearing trees will also be removed but they are considered unlikely to be used for breeding.

Importantly, the proposal would not result in any further substantial landscape scale fragmentation of habitat for the Little Lorikeet. Due to its nature, the proposal will result in the breaking apart of some habitat blocks into smaller portions. The new roadways and roundabouts will create a hard barrier to movement for some species but the Little Lorikeet is considered to be less affected. The Little Lorikeet is a highly mobile nomad and will freely fly long distances over open areas to move between foraging grounds. The level of fragmentation caused by the proposal will not have an impact on the ability of the Little Lorikeet to move through the landscape.

The National Parks and Wildlife Service (2002a) has mapped 48 hectares of high quality habitat for the Swift Parrot in the region of the Illawarra escarpment, coastal plan and plateau. This habitat mapping can be considered likely to also represent the available foraging habitat for the Little Lorikeet, as both of these species are large-scale nomads that follow blossom resources. High quality habitat is not mapped in the study area. As such, the habitats in the study area are not considered important to the long-term survival of the Little Lorikeet in the locality.

D. Whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly)

Areas of outstanding biodiversity value refers only to those areas of land listed in the register managed by DPE (DPE, 2022a). This question is not applicable, as no critical habitat has been listed for Little Lorikeet and there are no other areas of outstanding biodiversity value in the locality.

E. Whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process

A KTP is a process that threatens, or may have the capability to threaten, the survival or evolutionary development of species, population or ecological community. Key threatening processes are listed under the BC Act and at the present, there are currently 39 listed KTPs.

Of the listed KTPs, the only KTP relevant to Little Lorikeet that would be increased by the proposal is clearing of native vegetation and loss of hollow bearing trees. The proposal would require the clearing of about 7.53ha of suitable foraging habitat and removal of about 19 hollow bearing trees, however they are considered unlikely to be used for breeding.

Conclusion

The study area contains potential foraging and breeding habitat for the Little Lorikeet. However, due to the general absence of records for this species in the locality it is only considered moderately likely to occur. However, suitable habitat is present within the PCTs and potential impacts to this species must be considered. The impacts of the proposal to the Little Lorikeet would be limited to loss of some lower quality foraging habitat caused by direct clearing or damage to vegetation during the construction phase. Up to 19 hollow-bearing trees will also be removed but they are considered unlikely to be used for breeding. The main points of consideration are as follows:

- No impacts to the life cycle of the Little Lorikeet are anticipated as a result of the proposal.
- The Little Lorikeet would suffer a small reduction in extent of PCTs suitable as foraging habitat from the proposal of around 7.53 ha. This is a small proportional impact. The impact to plantings and urban trees that may provide suitable foraging habitat for the Little Lorikeet is around 4.88 hectares.
- Importantly, the proposal would not result in any further substantial landscape scale fragmentation of habitat for the Little Lorikeet.
- High quality habitat for the Little Lorikeet is not mapped in the study area. As such, the habitats in the study area are not considered important to the long-term survival of the Little Lorikeet in the locality.
- No areas of outstanding biodiversity value will be affected.
- The only KTPs relevant to the Little Lorikeet that would be increased by the proposal is clearing of native vegetation and loss of hollow-bearing trees but the proposal will not contribute to any of the other key threats to this species.

After consideration of the factors above, an overall conclusion has been made that the proposal is unlikely to result in a significant effect to the Little Lorikeet.

Swift Parrot (Lathamus discolor)

The Swift Parrot is endemic to south-eastern Australia and breeds only in Tasmania. It migrates to mainland Australia in autumn. The National Parks and Wildlife Service (2002a) identifies the Swift Parrot as an irregular migrant to the Illawarra escarpment, coastal plain and plateau. There have been records of the Swift Parrot made from the Wollongong University campus in 2002 suggesting this species occasionally utilises the habitats. As such, the Swift Parrot is considered moderately likely to occur within the study area on an infrequent basis based on the presence of suitable foraging habitat and nearby records.

The factors to be considered when determining whether an action, development or activity is likely to significantly affect threatened species or their habitats are outlined below:

A. In the case of a threatened species, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction

The Swift Parrot is endemic to south-eastern Australia and breeds only in Tasmania. It migrates to mainland Australia in autumn. As such, the proposal would not affect breeding habitat for this

species. Additionally, the study area does not contain any important winter foraging grounds for the species (DPE, 2022b; National Parks and Wildlife Service, 2002) so none would be impacted. The closest important foraging area is mapped about 7km south of the study area in Cringila.

No impacts to the life cycle of the Swift Parrot species are anticipated as a result of the proposal and the proposal is not considered likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction.

B. In the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:

i. Is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

ii. Is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction

Not applicable.

C. In relation to the habitat of a threatened species or ecological community:

i. The extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and

ii. Whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and

iii. The importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species or ecological community in the locality

As a specialist nectarivore dependent on flowering eucalypts and lerp, Swift Parrots are vulnerable to the loss of quantity and quality of key forage tree species. As a large-scale migrant, it has the ability to cover vast areas of its winter range, seeking suitable flowering eucalypt habitat. The species is a very rare occasional visitor to the region and may utilise trees in the study area for foraging intermittently when no other suitable resources are available. The Swift Parrot would suffer a small reduction in extent of PCTs suitable as foraging habitat from the proposal of around 7.53 ha. This is a small proportional impact considering the National Parks and Wildlife Service (2002a) has mapped 48 hectares of high quality habitat for the Swift Parrot in the region of the Illawarra escarpment, coastal plan and plateau. The impact to plantings and urban trees that may provide suitable foraging habitat for the Swift Parrot is around 4.88 hectares.

Importantly, the proposal would not result in any further substantial landscape scale fragmentation of habitat for the Swift Parrot. Due to its nature, the proposal will result in the breaking apart of some habitat blocks into smaller portions. The new roadways and roundabouts will create a hard barrier to movement for some species but the Swift Parrot is considered to be less affected. The Swift Parrot is a highly mobile nomad and will freely fly long distances over open areas to move between foraging grounds. The level of fragmentation caused by the proposal will not have an impact on the ability of the Swift Parrot to move through the landscape.

There is about 48 hectares of mapped high quality habitat for the Swift Parrot in the region of the Illawarra escarpment, coastal plan and plateau (NSW National Parks and Wildlife Service, 2002a; DPW, 2022). The habitat model was developed for this species with high quality habitat derived from vegetation communities dominated by Swamp Mahogany, and with communities with high presence of Coast Banksia (*Banksia integrifolia subsp. integrifolia*) included as moderate quality habitat. High quality habitat for the Swift Parrot is not mapped in the study area, the closest patch is about 7km to the south. As such, the habitats in the study area are not considered important to the long-term survival of the Swift Parrot in the locality.

D. Whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly)

Areas of outstanding biodiversity value refers only to those areas of land listed in the register managed by DPE (DPE, 2022a). This question is not applicable, as no critical habitat has been listed for Swift Parrot and there are no other areas of outstanding biodiversity value in the locality.

E. Whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process

A KTP is a process that threatens, or may have the capability to threaten, the survival or evolutionary development of species, population or ecological community. Key threatening processes are listed under the BC Act and at the present, there are currently 39 listed KTPs.

Of the listed KTPs, the only KTP relevant to Swift Parrot that would be increased by the proposal is clearing of native vegetation. The proposal would require the clearing of about 7.53ha of suitable native foraging habitat.

Conclusion

The Swift Parrot is endemic to south-eastern Australia and breeds only in Tasmania. It migrates to mainland Australia in autumn. As such, the proposal would not affect breeding habitat for this species. Additionally, the study area does not contain any important winter foraging grounds. This species has been rarely recorded on the university grounds so it does occur in the habitats infrequently. As such, the impacts of the proposal to the Swift Parrot would be limited to loss of some lower quality foraging habitat caused by direct clearing or damage to vegetation during the construction phase. The main points of consideration are as follows:

- No impacts to the life cycle of the Swift Parrot are anticipated as a result of the proposal.
- The Swift Parrot would suffer a small reduction in extent of PCTs suitable as foraging habitat from the proposal of around 7.53 ha. This is a small proportional impact. The impact to plantings and urban trees that may provide suitable foraging habitat for the Swift Parrot is around 4.88 hectares.
- Importantly, the proposal would not result in any further substantial landscape scale fragmentation of habitat for the Swift Parrot.
- High quality habitat for the Swift Parrot is not mapped in the study area. As such, the habitats in the study area are not considered important to the long-term survival of the Swift Parrot in the locality.
- No areas of outstanding biodiversity value will be affected.
- The only KTP relevant to the Swift Parrot that would be increased by the proposal is clearing of native vegetation but the proposal will not contribute to any of the other key threats to this species.

After consideration of the factors above, an overall conclusion has been made that the proposal is unlikely to result in a significant effect to the Swift Parrot.

Powerful Owl (*Ninox strenua*)

The Powerful Owl is recognised as an uncommon resident of the Illawarra escarpment, coastal plan and plateau and is present in many forested environments including urban bushland, such as Mangerton Park (NSW National Parks and Wildlife Service, 2002a). On the Illawarra escarpment, coastal plan and plateau the distribution of prey is a determining factor driving the presence of the Powerful Owl with tall escarpment forests with some mesic influence being important as they provide sufficient habitat for prey species particularly Common Ringtail Possum and Sugar Glider (NSW National Parks and Wildlife Service, 2002a). Most of the optimal habitat for the Powerful Owl on the Illawarra escarpment, coastal plan and plateau occurs along and just above the escarpment with 5,996 hectares of high quality habitat for this species being modelled (NSW National Parks and Wildlife Service, 2002a). This modelled high quality habitat also includes the areas of PCT 694 and PCT 1245 within the study area that are tall wet forests with a mesic (rainforest) influence that contain suitable prey species including Brushtail Possum, Ringtail Possum, Sugar Glider and Grey-headed Flying-fox. While the habitat in the study area provides suitable foraging habitat for the Powerful Owl, no suitable breeding habitat is present. The

Powerful Owl is dependent on suitably large tree-hollows (at least 0.5 m deep), generally found in the trunks of tall, living, mature trees of diameter at breast height of 80-240 cm that are at least 150 years old (Department of Environment and Conservation, 2006).

The factors to be considered when determining whether an action, development or activity is likely to significantly affect threatened species or their habitats are outlined below:

A. In the case of a threatened species, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction

The Powerful Owl breeds and hunts in open or closed sclerophyll forest or woodlands and occasionally hunts in open habitats. It roosts by day in dense vegetation. Their nesting requirements are more specialised being totally dependent on suitably large tree-hollows generally found in the trunks of tall, living, mature trees. Powerful Owls nest in large tree hollows (at least 0.5 m deep), in large eucalypts (diameter at breast height of 80-240 cm) that are at least 150 years old. The main prey items are medium-sized arboreal marsupials, particularly the Greater Glider, Common Ringtail Possum and Sugar Glider. Flying foxes are important prey in some areas and birds comprise about 10-50% of the diet depending on the availability of preferred mammals. As most prey species require hollows and a shrub layer, these are important habitat components (OEH, 2017).

In terms of the life cycle of the Powerful Owl, the vegetation within the study area provides suitable foraging habitat for this species but no suitable breeding habitat is present. The areas of PCT 694 and PCT 1245 within the study area are tall wet forests with a mesic (rainforest) influence that contain suitable prey species for the Powerful Owl including Brushtail Possum, Ringtail Possum, Sugar Glider and Grey-headed Flying-fox. Any birds that have a home range that includes the lower escarpment (i.e. any birds around Mt Kembla) may utilise the habitat in the study area on occasion for foraging. No suitable breeding habitat is present as the trees in the study area are not suitably large (or old) enough to contain tree-hollows in the trunk of a size suitable for this species to nest in. As such, foraging habitat will be removed but no breeding habitat will be affected. There is limited potential for direct mortality of owls from the proposal.

Potential habitats for the Powerful Owl in the locality are extensive with 5,996 hectares of high quality habitat for this species being modelled on the Illawarra escarpment, coastal plan and plateau (NSW National Parks and Wildlife Service, 2002a). The loss of potential foraging habitat associated with the proposal is not expected to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction. This is because no breeding habitat will be affected and the foraging habitat to be affected represents a small proportion of the available habitat in the locality. The proposal is considered unlikely to result in a reduction in population size or reproductive success of the Powerful Owl.

B. In the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:

i. Is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

ii. Is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction

Not applicable.

C. In relation to the habitat of a threatened species or ecological community:

i. The extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and

ii. Whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and

iii. The importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species or ecological community in the locality

The proposal will result in the removal of approximately 7.53 ha of native vegetation which is considered to provide suitable foraging habitat for the Powerful Owl. This extent of habitat removal represents 0.1% of the 5,996 hectares of high quality habitat for this species being modelled on the Illawarra escarpment, coastal plan and plateau.

Importantly, the proposal will not result in fragmentation of habitat for the Powerful Owl. No large blocks of high quality habitat for this species will be broken apart by the works. The Powerful Owl is a highly mobile species that occupies a large home range and they are able to persist in areas where large-scale disturbances occur (i.e. urban areas of Sydney, Melbourne and Brisbane and areas near the proposal such as Mangerton Park). The proposal will not affect any core breeding habitat for the Powerful Owl and the movement of owls between habitat patches will not be affected.

While the habitat in the study area is modelled as being high quality (NSW National Parks and Wildlife Service, 2002a) no important breeding for the Powerful Owl will be removed. Tree hollows potentially suitable as nesting habitat for the Powerful Owl were not noted in areas to be cleared and are not present in the immediate surrounding habitats. The habitat to be cleared forms part of a larger matrix of foraging habitat for the Powerful Owl and while the areas of habitat to be cleared contribute to the habitat for prey populations, the extent of habitat removal is small and considered unlikely to greatly affect foraging opportunities for the Powerful Owl in the locality. The habitat to be removed by the proposal is not considered to be limiting for the Powerful Owl and as such is not considered of critical importance to this species.

D. Whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly)

Areas of outstanding biodiversity value refers only to those areas of land listed in the register managed by DPE (DPE, 2022a). This question is not applicable, as no critical habitat has been listed for Powerful Owl and there are no other areas of outstanding biodiversity value in the locality.

E. Whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process

A KTP is a process that threatens, or may have the capability to threaten, the survival or evolutionary development of species, population or ecological community. Key threatening processes are listed under the BC Act and at the present, there are currently 39 listed KTPs.

Of the listed KTPs, the only KTP relevant to Powerful Owl that would be increased by the proposal is clearing of native vegetation and loss of hollow bearing trees. The proposal would require the clearing of about 7.53ha of suitable foraging habitat. Although the hollows to be removed are not sufficient to support breeding habitat for the Powerful Owl, they support the populations of prey species including possums and gliders.

Conclusion

The Powerful Owl is recognised as an uncommon resident of the Illawarra escarpment, coastal plan and plateau and is present in many forested environments including urban bushland. Most of the optimal habitat for the Powerful Owl on the Illawarra escarpment, coastal plan and plateau occurs along and just above the escarpment. Modelled high quality habitat for the Powerful Owl occurs in the study area. While the habitat in the study area provides suitable foraging habitat for the Powerful Owl, no suitable breeding habitat is present.

As such, the impacts of the proposal to the Powerful Owl would be limited to loss of foraging habitat caused by direct clearing or damage to vegetation during the construction phase. The main points of consideration are as follows:

- No impacts to the life cycle of the Powerful Owl are anticipated as a result of the proposal. Foraging habitat will be removed but no breeding habitat will be affected. There is limited potential for direct mortality of owls from the proposal.
- The Powerful Owl would suffer a small reduction in extent of PCTs suitable as foraging habitat from the proposal of around 7.53 ha. This is a small proportional impact.
- Importantly, the proposal would not result in any further substantial landscape scale fragmentation of habitat for the Powerful Owl.
- While the habitat in the study area is modelled as being high quality (NSW National Parks & Wildlife Service, 2002) no important breeding for the Powerful Owl will be removed. The habitat to be cleared forms part of a larger matrix of foraging habitat for the Powerful Owl and while the areas of habitat to be cleared contribute to the habitat for prey populations, the extent of habitat removal is small and considered unlikely to greatly affect foraging opportunities for the Powerful Owl in the locality. The habitat to be removed by the proposal is not considered to be limiting for the Powerful Owl and as such is not considered of critical importance to this species.
- No areas of outstanding biodiversity value will be affected.
- The only KTPs relevant to the Powerful Owl that would be increased by the proposal is clearing of native vegetation and loss of hollow bearing trees which support prey species.

After consideration of the factors above, an overall conclusion has been made that the proposal is unlikely to result in a significant effect to the Powerful Owl.

Grey-headed Flying-fox (*Pteropus poliocephalus*)

The Grey-headed Flying-fox was recorded flying over the study area during the field survey and temporarily perched on trees within the study area to rest during the flight to the north as the animals left the camp at Figtree. The Wollongong Figtree camp is located in the suburb of West Wollongong approximately 3 kilometres southeast of the study area. The rainforests and moist eucalypt forests of the Illawarra Escarpment are recognised as high quality habitat for the Grey-headed Flying-fox (NSW National Parks and Wildlife Service, 2002a). The Grey-headed Flying-fox feeds on Blackbutt (*Eucalyptus pilularis*) during flowering events and they will also use fruiting rainforest trees as a food source (NSW National Parks and Wildlife Service, 2002a, Eby and Law, 2008). As such, the habitats provided by the PCT 694 and PCT 1245 within the study area are considered to provide high quality seasonal foraging resource for the Grey-headed Flying-fox due to the dominance of Blackbutt and the tall rainforest sub canopy / midstorey that is composed of species typical of warm temperate and / or subtropical rainforest.

The factors to be considered when determining whether an action, development or activity is likely to significantly affect threatened species or their habitats are outlined below:

A. In the case of a threatened species, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction

The Grey-headed Flying-fox occurs in subtropical and temperate rainforests, tall sclerophyll forests and woodlands, heaths and swamps as well as urban gardens and cultivated fruit crops. Roosting camps are generally located within 20 km of a regular food source and are commonly found in gullies, close to water, in vegetation with a dense canopy. Annual mating commences in January and conception occurs in April or May; a single young is born in October or November.

There are no roost camps located in the study area and at the time of this assessment the proposal would not directly impact on any known breeding / maternity site. The Wollongong Figtree camp is located in the suburb of West Wollongong approximately 3 kilometres southeast of the study area and will not be impacted by the proposal (DAWE, 2022). However, the study area does provide a high quality seasonal foraging resource for the Grey-headed Flying-fox due to the dominance of Blackbutt and the tall rainforest sub canopy / midstorey that is composed of species typical of warm temperate and / or subtropical rainforest. As such, the impacts of the proposal to the Grey-headed Flying-fox would be limited to loss of foraging habitat caused by direct clearing or damage to vegetation during the construction phase.

The proposal would remove around 7.53 hectares of high quality foraging habitat for the Grey-headed Flying-fox in the form of eucalypt trees and rainforest midstorey in PCT 694 and PCT 1245. Planted trees including Spotted Gum (*Corymbia maculata*), other planted eucalypts, and fig trees may also provide a foraging resource during flowering and/or fruiting periods. The impact to plantings and urban trees that may provide suitable foraging habitat for the Grey-headed Flying-fox is around 4.88 hectares.

The affected area of foraging habitat would represent a small percentage of the total extent of important foraging habitats for the Grey-headed Flying-fox present within the locality and within the broader foraging range of individuals from the Wollongong Figtree camp. Given the relative widespread nature of similar vegetation along the Illawarra Escarpment, the proposal is not expected to significantly affect the life cycle of the Grey-headed Flying-fox. While some high quality seasonal foraging habitat will be removed, the impact is not considered likely to have an adverse effect on the life cycle of the species such that a viable local population of the species (taken here to be the Wollongong Figtree sub-population) is likely to be placed at risk of extinction. Extensive areas of high quality foraging habitat will remain within the foraging range of the Grey-headed Flying-fox individuals that use the Wollongong Figtree camp and sufficient foraging resources will remain in the study area, and locality, after the proposal has been built for this species to complete its life cycle.

B. In the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:

i. Is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

ii. Is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction

Not applicable.

C. In relation to the habitat of a threatened species or ecological community:

i. The extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and

ii. Whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and

iii. The importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species or ecological community in the locality

The extent of native foraging habitat for the Grey-headed Flying-fox would be reduced by around 7.53 ha by the proposal. This is the high quality foraging habitat in the form of eucalypt trees and rainforest midstorey in PCT 694 and PCT 1245. As the species is an opportunistic forager, this represents about 0.01% of the suitable native foraging habitat for this species in the locality (assuming only mapped Wet Sclerophyll Forests and Rainforests within the locality). Additionally, the impact to plantings and urban trees that may provide suitable foraging habitat for the Grey-headed Flying-fox is around 4.88 hectares.

Importantly, the proposal would not result in any further substantial landscape scale fragmentation of habitat for the Grey-headed Flying-fox. Due to its nature, the proposal will result in the breaking apart of some habitat blocks into smaller portions. The new roadways and roundabouts will create a hard barrier to movement for some species but the Grey-headed Flying-fox is considered to be less affected. The Grey-headed Flying-fox is highly mobile and will freely fly long distances (up to 50 km) over open areas including urbanised city centres to move between roost camps and foraging sites. The Grey-headed Flying-fox currently flies over the study area and uses the habitat patches and the level of fragmentation caused by the proposal is considered unlikely to alter this behaviour. Importantly, the proposal would not affect the movement of the Grey-headed Flying-fox between habitat patches.

The proposal will result in the removal of some high quality foraging habitat for the Grey-headed Flying-fox in the form of eucalypt trees and rainforest midstorey in PCT 694 and PCT 1245. This habitat would be of seasonal importance while the Blackbutt trees are flowering and rainforest species are bearing fruit. The National Parks and Wildlife Service (2002a) modelled the habitats for the Grey-headed Flying-fox on the Illawarra Escarpment, Coastal Plain and Plateau and found that there were 3,500 hectares of high quality habitats on the escarpment for the Grey-headed Flying-fox. The National Parks and Wildlife Service (2002a) modelling does not include the study area in the area of high quality habitat. Nonetheless, the PCTs within the study area do provide some high quality foraging resources and are likely to be seasonally important for a small number of individuals, but on a lesser scale than the large areas of wet forest and rainforest higher on the escarpment that provide larger areas of high quality habitat. Importantly, the proposal would not affect the Wollongong Figtree roosting camp, which is a very important site for the species in the locality.

D. Whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly)

Areas of outstanding biodiversity value refers only to those areas of land listed in the register managed by DPE (DPE, 2022a). This question is not applicable, as no critical habitat has been listed for Grey-headed Flying-fox and there are no other areas of outstanding biodiversity value in the locality.

E. Whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process

A KTP is a process that threatens, or may have the capability to threaten, the survival or evolutionary development of species, population or ecological community. Key threatening processes are listed under the BC Act and at the present, there are currently 39 listed KTPs.

Of the listed KTPs, the only KTP relevant to Grey-headed Flying-fox that would be increased by the proposal is clearing of native vegetation. The proposal would require the clearing of about 7.53ha of native and 4.88 ha of planted foraging habitat.

Conclusion

There are no roost camps located in the study area and at the time of this assessment the proposal would not directly impact on any known breeding / maternity site. As such, the impacts of the proposal to the Grey-headed Flying-fox would be limited to loss of foraging habitat caused by direct clearing or damage to vegetation during the construction phase. The main points of consideration are as follows:

- The proposal would remove around 7.53 hectares of high quality foraging habitat for the Grey-headed Flying-fox in the form of eucalypt trees and rainforest midstorey in PCT 694 and PCT 1245. The impact to plantings and urban trees that may provide suitable foraging habitat for the Grey-headed Flying-fox is around 4.88 hectares. This is a small proportional impact when compared to the 3,500 hectares of high quality habitat modelled by the National Parks and Wildlife Service (2002a).
- Importantly, the proposal would not result in any further substantial landscape scale fragmentation of habitat for the Grey-headed Flying-fox.
- The PCTs within the study area do provide some high quality foraging resources and are likely to be seasonally important for a small number of individuals, but on a lesser scale than the large areas of wet forest and rainforest higher on the escarpment that provide larger areas of high quality habitat. Importantly, the proposal would not affect the Wollongong Figtree roosting camp, which is a very important site for the species in the locality.
- No areas of outstanding biodiversity value habitat will be affected.
- The only KTP relevant to the Grey-headed Flying-fox that would be increased by the proposal is clearing of native vegetation but the proposal will not contribute to any of the other key threats to this species.

After consideration of the factors above, an overall conclusion has been made that the proposal is unlikely to result in a significant effect to the Grey-headed Flying-fox.

Large Bentwing-bat (*Miniopterus orianae oceanensis*) and Little Bentwing-bat (*Miniopterus australis*)

This assessment concerns the Large Bentwing-bat (*Miniopterus orianae oceanensis*) and Little Bentwing-bat (*Miniopterus australis*) which were identified on site from Anabat analysis. These species of bat are known to roost in caves, derelict mines, storm-water tunnels, culverts, bridges, buildings and other man-made structures. Suitable foraging habitat is present within the PCTs in the study area. No suitable roosting habitat for this species is present in the study area.

The factors to be considered when determining whether an action, development or activity is likely to significantly affect threatened species or their habitats are outlined below:

A. In the case of a threatened species, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction

The Large Bentwing-bat primarily roosts in caves, but will also use derelict mines, storm-water tunnels, buildings and other man-made structures. The Large Bentwing-bat forms populations centred on a maternity cave that is used annually in spring and summer for the birth and rearing of young. At other times of the year, populations disperse within about 300 km range of maternity caves. The Large Bentwing-bat hunts in forested areas (OEH, 2017).

The Little Bentwing-bat inhabits moist eucalypt forest, rainforest, vine thicket, wet and dry sclerophyll forest, Melaleuca swamps, dense coastal forests and banksia scrub. It is generally found in well-timbered areas. Little Bentwing-bats roost in caves, tunnels, tree hollows, abandoned mines, stormwater drains, culverts, bridges and sometimes buildings during the day, and at night forage for small insects beneath the canopy of densely vegetated habitats. They often share roosting sites with the Eastern Bentwing-bat and, in winter, the two species may form mixed clusters. In NSW the largest maternity colony is in close association with a large maternity colony of Eastern Bentwing-bats and appears to depend on the large colony to provide the high temperatures needed to rear its young. Maternity colonies form in spring and birthing occurs in early summer. Males and juveniles disperse in summer. Only five nursery sites /maternity colonies are known in Australia (OEH, 2017).

These species do not breed in the study area but may be present during autumn and winter. The population of the Eastern Bentwing-bat and Little Bentwing-bat that may utilise the habitats in the study area are considered viable.

All vegetation within the study area is likely to provide foraging habitat for these species and the riparian zone is likely to be a focal point for foraging. These bats do not breed in the study area but may spend time in the locality during autumn and/or winter where during which time they may forage in the habitats. The impacts of the proposal are not expected to have an adverse effect on the life cycle of these species such that a viable local population is likely to be placed at risk of extinction. Considerable foraging habitat will remain in the locality and these species can be expected to continue to overwinter in the locality after the proposal has been built.

B. In the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:

i. Is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

ii. Is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction

Not applicable.

C. In relation to the habitat of a threatened species or ecological community:

i. The extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and

ii. Whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and

iii. The importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species or ecological community in the locality

The proposal would remove around 7.53 ha of potential foraging habitat for the Large Bentwing-bat and Little Bentwing-bat. This amount of habitat removal is small when the amount of available foraging habitat in the locality is considered. The habitat within the study area is not limiting for these two species. No roosting or breeding habitat will be affected.

Importantly, the proposal would not result in fragmentation of habitat for these species. These species are highly mobile and will freely fly long distances over open areas to move between habitats. The proposal would not affect the movement of the Large Bentwing-bat or Little Bentwing-bat between habitat patches.

The vegetation in the study area would form a small component of a larger foraging range for these two species. Riparian vegetation is likely to be a focal point of foraging activity, as are the edges of vegetation patches. The loss of native vegetation from the study area would reduce the amount of foraging habitat available for these species by a small amount. However, when compared to the larger and higher quality vegetation remnants in the locality (i.e., the vegetation along the escarpment), the vegetation within the study area is not considered as important for the long-term survival of the Large Bentwing-bat or Little Bentwing-bat in the locality.

D. Whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly)

Areas of outstanding biodiversity value refers only to those areas of land listed in the register managed by DPE (DPE, 2022a). This question is not applicable, as no critical habitat has been listed for Large Bentwing-bat or Little Bentwing-bat and there are no other areas of outstanding biodiversity value in the locality.

E. Whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process

A KTP is a process that threatens, or may have the capability to threaten, the survival or evolutionary development of species, population or ecological community. Key threatening processes are listed under the BC Act and at the present, there are currently 39 listed KTPs.

Of the listed KTPs, the only KTP relevant to Large Bentwing-bat and Little Bentwing-bat that would be increased by the proposal is clearing of native vegetation, loss of hollow bearing trees, and removal of dead wood and dead trees. The proposal would require the clearing of about 7.53ha of suitable foraging habitat and the removal of hollows and dead trees would remove daytime sheltering habitat.

Conclusion

The Large Bentwing-bat and Little Bentwing-bat would suffer a small reduction in extent of foraging habitat from the proposal. The proposal is unlikely to reduce the population size of the Large Bentwing-bat or Little Bentwing-bat or decrease the reproductive success of these species.

After consideration of the factors above, an overall conclusion has been made that the proposal is unlikely to result in a significant effect to the Large Bentwing-bat or Little Bentwing-bat.

Environment Protection and Biodiversity Conservation Act 1999

The following assessments of significance are prepared in accordance with the federal *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and the associated guidelines (Department of the Environment, 2013). The following species have been assessed:

Flora

- *Rhodamnia rubescens* (Scrub Turpentine)

Fauna

- Swift Parrot (*Lathamus discolor*)
- Grey-headed Flying-fox (*Pteropus poliocephalus*)
- Greater Glider (*Petauroides volans*)
- Migratory Species

Rhodamnia rubescens (Scrub Turpentine)

Rhodamnia rubescens (Scrub Turpentine) has been recorded in numerous locations to the west of the study area. Verbal discussions with University of Wollongong ground-staff noted that the species was planted on the University campus (within the study area) during regeneration work in the mid-1990s. Nevertheless, the species was not recorded in plots or during other targeted threatened flora surveys in the original 2017 biodiversity assessment or in the 2022 targeted surveys. It is possible that any individuals previously present at the site have been lost by infection of Myrtle Rust (*Austropuccinia psidii*). Nevertheless, the species has strong associations with mapped PCTs in the study area, of which there is about 7.53ha of suitable habitat within the impact area.

Rhodamnia rubescens is a shrub or small tree to 25 m high with bark reddish brown, fissured bark and densely tomentose young stems. It occurs in littoral, warm temperate and subtropical rainforest and wet sclerophyll forest in coastal areas from Batemans Bay in the south, to Bundaberg in Queensland. Populations of R*. rubescens* typically occur in coastal regions and occasionally extend inland onto escarpments up to 600 m a.s.l. in areas with rainfall of 1,000-1,600 mm (DPI, 2021; NSW Scientific Committee, 2019).

It flowers in late winter through to spring, with a peak in October, and fruits typically begin to appear in December (NSW Scientific Committee, 2019). The species is highly susceptible to infection by Myrtle Rust (*Austropuccinia psidii*) which causes dieback of all parts of the plant. The continued decline of mature plants and lack of successful regeneration threaten the long-term viability of *R. rubescens* in the wild (NSW Scientific Committee, 2019).

An action is likely to have a significant impact on a critically endangered or endangered species if there is a real chance or possibility that it will:

1. **Lead to a long-term decrease in the size of a population**

Under the EPBC Act, a population includes:

- a geographically distinct regional population, or collection of local populations, or
- a population, or collection of local populations, that occurs within a particular bioregion.

The number of distinct populations of *R. rubescens* is unknown but is expected to be large given the wide distribution of the species (NSW Scientific Committee, 2019). Little is known about the reproductive ecology of the species (Snow, 2007), yet they are known to resprout from rootstock after fire and produce suckers (Benson & McDougall, 1998). Seed dispersal is via birds, bees and water movement with germination taking about 1–2 months (Beardsell et al., 1993; Benson & McDougall, 1998). The species is expected to have a generation length of at least 30–40 years (Floyd, 2008). There are several recent records of the species within the locality, most of which are in protected vegetated areas including Mt Keira and Illawarra State Conservation Area. Considering the proximity of these records and the methods of seed dispersion, they may be considered part of the local population.

Considering *R. rubescens* was not recorded in the study area in the 2017 and 2022 surveys and there are anecdotal historical records of the species being planted in the area within the length of a single generation, it is considered possible that any individuals have been lost to Myrtle Rust (however presence of Myrtle Rust is not confirmed) and are no longer present. Regenerating populations of the species rarely survive infection, with seedlings/suckers often killed by Myrtle Rust and seed based recruitment limited (NSW Scientific Committee, 2019).

As such, the proposal would not result in a long-term decrease in the size of the local population.

2. Reduce the area of occupancy of the species

The proposal would remove 7.53ha of suitable habitat (in varying conditions) which comprises about 0.86ha of PCT 1245 and 6.32ha of PCT 694. This would comprise the removal of about 0.05% and 0.4% of PCT 1245 and PCT 694 within the 10km locality, respectively. However, as no plants were recorded in the study area in the recent surveys, the proposal would not likely reduce the area of occupancy of a viable population, yet it would reduce suitable habitat.

3. Fragment an existing population into two or more populations

The patch of suitable habitat remaining (PCT 1245) would be reduced by the proposal, thus increasing fragmentation between patches on the north and south side of the highway. This would extend the distance between patches by about 130m. Nevertheless, the distance between the isolated southern patch and the nearby bushland at Mt Keira would remain at about 200-400m, separated by the residential areas of Binda and Dallas Streets.

If the species is present (including in the seed bank), the fragmentation would further increase edge effects on the patch of suitable habitat. However, due to the methods of seed dispersal, this distance would not fragment the population in two.

4. Adversely affect habitat critical to the survival of a species decline

There is no critical habitat listed for the species and no federal recovery plan for the species, however the NSW priority management area for the species covers its entire extent (NSW Government, 2019).

The PCTs in the impact area provide suitable habitat for the species, however the condition of the vegetation varies in its habitat value. Some patches, particularly on the east of the existing intersection of Mt Ousley Rd and the Pacific Highway, are of poor condition (highly infested with Lantana) and are of low habitat value. As such, moderate to good quality patches are considered to be of higher habitat value, nevertheless as it considered unlikely that a viable local population is present due to the lack of known plants and the low importance of the habitat on site, the proposal would not impact habitat critical to the survival of the species.

5. Disrupt the breeding cycle of a population

No plants were record in the study area in the 2017 and 2022 surveys. If the species in present in the seed bank the proposal would remove all reproductive material in the impact area. Nonetheless, as it is unlikely there is a viable population present in the impact area, the proposal is unlikely to impact the breeding cycle of the species directly, or indirectly (in the locality).

6. Modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline

The proposal would remove 7.53ha of suitable habitat (in varying conditions) which comprises about 0.86ha of PCT 1245 and 6.32ha of PCT 694. Ongoing use of the highway also increase the risk of weed and pathogen incursion and contaminated runoff in the adjacent fragmented habitat. Nevertheless, as no plants were recorded in the study area in the recent surveys, the proposal would not likely reduce the extent of habitat that the species is likely to decline the population in the locality.

7. Result in invasive species that are harmful to a critically endangered or endangered species becoming established in the endangered or critically endangered species' habitat

Threats to the species include "degradation of habitat and competition from transformer weed species" (DPI, 2019). Construction activities and ongoing use of the highway increases risk of introduction and invasion of weed species in adjacent habitat. Weed material may be introduced by wind, vehicles and road runoff. The fragmentation of the habitat following the road widening will increase the edge effects and reduce the resilience of the vegetation, thus making it more vulnerable to weed incursion.

Nevertheless, as no plants were record in the study area and it is unlikely it maintains a viable population of *R. rubescens*, the risk of weed incursion impacting the species is low.

8. Introduce disease that may cause the species to decline

It is unconfirmed whether Myrtle Rust is present in the impact area, however considering the presence of the creek (as a transport route for the fungus) and extent of the fungus in developed areas of the east coast (NSW Scientific Committee, 2019), presence is possible. Machinery associated with vegetation clearance and subsequent construction has the potential to transmit and move Myrtle Rust (another other pathogens) within the site. Additionally, ongoing use of the highway increases risk of pathogen introduction via vehicles and road runoff.

Nevertheless, as no plants were record in the study area and it is unlikely it maintains a viable population of *R. rubescens*, the risk of introduced diseases impacting the species incursion impacting the species is low.

9. Interfere with the recovery of the species

There is no federal recovery plan for the species, however the NSW management plan includes actions such as data collection, species monitoring, collection of genetic material, propagation, weed management, community engagement and education and fire management (NSW Government, 2019). As no plants were record in the study area and it is unlikely it maintains a viable population of *R. rubescens*, the study area is not a suitable location for the implementation of management activities. As such, the proposal would not interfere with the recovery of the species.

Conclusion

Rhodamnia rubescens was not recorded in the study area in the 2017 and 2022 surveys however, there are nearby records and anecdotal historical records of the species being planted in the University campus area. The PCTs in the impact area provide suitable habitat for the species, however the condition of the vegetation varies in its habitat value with areas of high weed incursion having lower habitat value.

The lack of recorded *R. rubescens* individuals in the surveys indicates it is unlikely the site supports a viable population, and any historically planted plants may have been lost to Myrtle Rust (however presence of Myrtle Rust is not confirmed).

If the species is present in the seedbank, the material would be lost during construction. Additionally, the loss of habitat would limit future regeneration of the species in the remaining vegetation. The works would increase fragmentation of habitat within the study area, however considering the lack of plants and the reproductive methods, this would not split a population in two.

Considering the above assessment, it is unlikely that the proposal would significantly impact *R. rubescens* or its habitat. As such, no referral to the federal Minister for the Environment is required.

Grey-headed Flying-fox (Pteropus poliocephalus)

The Grey-headed Flying-fox was recorded flying over the study area during the field survey and temporarily perched on trees within the study area to rest during the flight to the north as the animals left the camp at Figtree. The Wollongong Figtree camp is located in the suburb of West Wollongong approximately 3 kilometres southeast of the study area. The rainforests and moist eucalypt forests of the Illawarra Escarpment are recognised as high quality habitat for the Grey-headed Flying-fox (NSW National Parks and Wildlife Service, 2002a). The Grey-headed Flying-fox feeds on Blackbutt (*Eucalyptus pilularis*) during flowering events and they will also use fruiting rainforest trees as a food source (NSW National Parks and Wildlife Service, 2002a, Eby and Law, 2008). As such, the habitats provided by the PCT 694 and PCT 1245 within the study area are considered to provide high quality seasonal foraging resource for the Grey-headed Flying-fox due to the dominance of Blackbutt and the tall rainforest sub canopy / midstorey that is composed of species typical of warm temperate and / or subtropical rainforest.

It is unlikely that the Grey-headed Flying-foxes that use the study area are part of an 'important population' as defined by the Matters of National Environmental Significance: Significant Impact Guidelines 1.1 (Department of the Environment, 2013). The Grey-headed Flying-foxes that use the study area are not part of a key source population either for breeding or dispersal, are not likely to be necessary for maintaining genetic diversity, and are not at or near the limit of the species range.

An action is likely to have a significant impact on a vulnerable species if there is a real chance or possibility that it will:

1. Lead to a long-term decrease in the size of an important population of a species

There are no roost camps in the study area and the action will not affect any known permanent roosting, breeding / maternity site. Therefore, it is likely that the impacts of construction and operation of the action would be confined to loss of feeding habitat caused by direct clearing or damage to native vegetation during the construction phase. There is also a low risk of vehicle strike during operation.

The proposal would remove around 7.53 hectares of high quality foraging habitat for the Grey-headed Flying-fox in the form of eucalypt trees and rainforest midstorey in PCT 694 and PCT 1245. However, the removal of vegetation would be avoided where possible and minimised during detailed design. Planted trees including Spotted Gum (*Corymbia maculata*), other planted eucalypts, and fig trees may also provide a foraging resource during flowering and/or fruiting periods. The impact to plantings and urban trees that may provide suitable foraging habitat for the Grey-headed Flying-fox is around 4.88 hectares. Given the relative widespread nature of similar native vegetation and planted vegetation in the locality and abundance of higher quality foraging habitat within the feeding range of regional populations, the proposal is not expected to lead to a long-term decrease in the size of an important population.

2. Reduce the area of occupancy of an important population

The area of occupancy of the Grey-headed Flying-fox is not known but the species exists as one interconnected population along the eastern Australian coastal belt from Rockhampton in central Queensland to Melbourne in Victoria. The area occupied by this species will remain the same after the action. No decrease in the area of occupancy for this species expected as a result of the proposal.

3. Fragment an existing important population into two or more populations

Highly mobile species such as bats are expected to be less impacted by fragmentation. The Grey-headed Flying-fox is particularly well adapted to accessing widely spaced habitat resources given its mobility and preference for seasonal fruits and blossom in differing parts of the landscape. The proposal would not fragment an important population of the Grey-headed Flying-fox. Individuals will still be able to disperse between roosts along the east Australian coast. Genetic exchange within the population and dispersal will not be disrupted by the proposal.

4. Adversely affect habitat critical to the survival of a species

This species typically exhibits very large home range and Grey-headed Flying-fox is known to travel distances of at least 50 kilometres from roost sites to access seasonal foraging resources. There are no known roost camps within the study area and the site does not provide critical roosting habitat.

However, there are a number of known roost camps with a 50km radius of the proposal, the closest being the Fig Tree camp. The draft recovery plan for the Grey-headed Flying-fox identifies critical foraging habitat for this species as:

- Productive during winter and spring, when food bottlenecks have been identified
- Known to support populations of >30,000 individuals, within an area of 50 kilometre radius of a camp site
- Productive during the final weeks of gestation, and during the weeks of birth, lactation and conception (Sept-May)
- Productive during the final stages of fruit development and ripening in commercial crops affected by Grey-headed Flying-foxes
- Known to be continuously occupied as a camp site.

Native vegetation within the study area may constitute critical foraging habitat. Blackbutt trees flower from September to March when the Grey-headed Flying-fox is giving birth and rearing young. The affected area of foraging habitat would represent a small percentage of the total extent of important foraging vegetation types present within a 50 kilometre radius of the Fig Tree camp site. Given the extensive nature of high quality foraging habitats along the escarpment, the proposal is not expected to adversely affect foraging habitat critical to the survival of this species in this region.

5. Disrupt the breeding cycle of an important population

As stated above there would be a minor impact on foraging habitat identified as important during the breeding cycle of the species. The upgrade would not directly impact on a known roost camp / breeding or maternity site. Extensive foraging resources are available on the escarpment that will provide suitable resources during the maternity season. The habitats in the study area are not limiting for this species.

6. Modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline

No evidence of a roost camp has been identified from the study area. Further, there would be a relatively minor impact on foraging habitat. This impact is not expected to lead to a decline in the species in this region considering the magnitude of this impact and the expanse of high quality foraging habitat available to local animals along the escarpment.

7. Result in invasive species that are harmful to a vulnerable species becoming established in the Vulnerable species' habitat

The action is unlikely to result in an invasive species harmful to the Grey-headed Flying-fox becoming established in the habitat. The potential for weed invasion was considered possible with a proposal of this nature and appropriate controls are required during construction and operation of the road to reduce this threat. The management of invasive species would be managed under the construction environmental management plan and during operation of the road using best practice methods.

8. Introduce disease that may cause the species to decline

There are no known disease issues affecting this species in relation to the action. The action would be unlikely to increase the potential for significant disease vectors to affect local populations.

9. Interfere substantially with the recovery of the species.

The Draft National Recovery Plan for the Grey-headed Flying-fox (*Pteropus poliocephalus*) (Department of Environment Climate Change and Water, 2009) outlines the following actions:

- Identify and protect foraging habitat critical to the survival of Grey-headed Flying-foxes across their range
- Enhance winter and spring foraging habitat for Grey-headed Flying-foxes
- Identify, protect and enhance roosting habitat critical to the survival of Grey-headed Flying-foxes
- Significantly reduce levels of deliberate Grey-headed Flying-fox destruction associated with commercial horticulture
- Provide information and advice to managers, community groups and members of the public that are involved with controversial flying-fox camps
- Produce and circulate educational resources to improve public attitudes toward Grey-headed Flying-foxes, promote the recovery program to the wider community and encourage participation in recovery actions
- Monitor population trends for the Grey-headed Flying-fox
- Assess the impacts on Grey-headed Flying-foxes of electrocution on powerlines and entanglement in netting and barbed wire, and implement strategies to reduce these impacts
- Oversee a program of research to improve knowledge of the demographics and population structure of the Grey-headed Flying-fox
- Maintain a National Recovery Team to oversee the implementation of the Grey-headed Flying-fox National Recovery Plan

The recovery actions listed above are largely not applicable to the action and the action is not expected to interfere substantially with the recovery of the species.

Conclusion

The Grey-headed Flying-fox will suffer a small reduction in extent of suitable foraging habitat from the action. No breeding camps or other important habitat will be impacted. The action is unlikely to reduce the population size of the Grey-headed Flying-fox or decrease the reproductive success of this species. The action will not interfere with the recovery of the Grey-headed Flying-fox and will not contribute to the key threats to this species.

After consideration of the factors above, an overall conclusion has been made that the action is unlikely to result in a significant impact to the Grey-headed Flying-fox.

Greater Glider (*Petaurus volans*)

Suitable habitat types for the Greater Glider are present on site in both PCTs. Furthermore, high quality habitat for the species has been modelled in the study area by the National Parks and Wildlife Service (2002). As such, this species is considered moderately likely to occur in the study area due to the presence of suitable habitats. The tree hollows within the study area are not considered large enough to support this species so no breeding habitat is expected to be present.

It is unlikely that the Greater Gliders that may use the study area are part of an 'important population' as defined by the Matters of National Environmental Significance: Significant Impact Guidelines 1.1 (Department of the Environment, 2013). The Greater Gliders that may use the study area are not part of a key source population for breeding or dispersal, are not likely to be necessary for maintaining genetic diversity, and are not at or near the limit of the species range.

An action is likely to have a significant impact on a vulnerable species if there is a real chance or possibility that it will:

1. Lead to a long-term decrease in the size of an important population of a species

The Greater Glider is restricted to eastern Australia, occurring from the Windsor Tableland in north Queensland through to central Victoria (Wombat State Forest), with an elevational range from sea level to 1200 m above sea level (Threatened Species Scientific Committee, 2016). An isolated inland subpopulation occurs in the Gregory Range west of Townsville and another in the Einasleigh Uplands (Threatened Species Scientific Committee, 2016). The inland sub-populations

of this species would be considered important. There is no evidence to suggest that any animals that may use the study area as habitat would not constitute an important population.

There are no robust estimates of population size or population trends of the greater glider across its total distribution (Threatened Species Scientific Committee, 2016). The Threatened Species Scientific Committee (2016) considers that the total number of mature individuals is not extremely low, very low or low and the population size is estimated at >100,000 mature individuals. Across its broader distribution density ranges from 0.01 to 5 individuals per hectare (Threatened Species Scientific Committee, 2016). With approximately 7.53 ha of potential foraging habitat in the impact area, the carrying capacity of the habitat may range from 0.09 to 49.75 individuals, which is a broad range. Given the quality of the habitat observed combined with the absence of records during the nocturnal survey it is likely that only one or two animals would utilise the habitat of they were present. An impact to one or two individuals from moderate quality habitat is unlikely to lead to a long-term decrease in the size of the Greater Glider population when the population is estimated at >100,000 mature individuals.

2. Reduce the area of occupancy of an important population

The extent of occurrence for the Greater Glider is estimated at 1,586,870 km^2 and the area of occupancy estimated at 16,164 km^2 (Threatened Species Scientific Committee, 2016). The proposal will decrease the amount of available habitat by approximately 7.53 hectares. This impact represents 0.04% of the current area of occupancy. However, the habitat is only moderately suitable and may not be occupied. Overall, the predicted impact is unlikely to reduce the area of occupancy for this species and the study area is unlikely to have been included in the area of occupancy calculations undertaken for this species.

3. Fragment an existing important population into two or more populations

Due to low dispersal ability the Greater Glider is thought to be sensitive to fragmentation and have relatively low persistence in small forest fragments (Threatened Species Scientific Committee, 2016). Modelling suggests that they require native forest patches of at least 160 km^2 to maintain viable populations (Threatened Species Scientific Committee, 2016). While the habitat in the study area is much smaller than this, this species has still been assessed as a precautionary measure due to the presence of suitable PCTs and habitat modelling by the National Parks and Wildlife Service (2002).

Due to the nature of the proposal, it may potentially result in an increase in habitat fragmentation due to the design of the new intersection. The current habitat is likely to be divided up into smaller fragments separated by a barrier posed by the new roadways. The roadways between the fragments may be up to 20 metres wide. Given sufficient height of vegetation adjacent to the road, the Greater Glider could glide this distance and move between newly created habitat patches. While some fragmentation will occur, the level of fragmentation is not considered likely to fragment an existing important population into two or more populations.

4. Adversely affect habitat critical to the survival of a species

Critical habitat for the Greater Glider is not present in the study area. Critical habitat for this species includes tall wet old growth forest in patches of greater than 160 km^2 with abundant live hollow-bearing trees and a diversity of eucalypts for foraging. The habitat in the study area is of a suitable broad type but the size of patches is small and tree hollows of a suitable size are limited.

5. Disrupt the breeding cycle of an important population

No impacts on breeding are anticipated, as no suitable breeding habitat is present in the study area.

6. Modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline

The habitat in the study area is of a suitable broad type but the size of patches is small and tree hollows of a suitable size are limited. The area of occupancy for the Greater Glider is estimated at 16,164 km^2 (Threatened Species Scientific Committee, 2016) and the impacts from the proposal on some moderate quality habitat are considered unlikely to lead to a decline in the species in this region.

7. Result in invasive species that are harmful to a vulnerable species becoming established in the Vulnerable species' habitat

The action is unlikely to result in an invasive species harmful to the Greater Glider becoming established in the habitat. The potential for weed invasion was considered possible with a proposal of this nature and appropriate controls are required during construction and operation of the road to reduce this threat. The management of invasive species would be managed under the construction environmental management plan and during operation of the highway using best practice methods.

8. Introduce disease that may cause the species to decline

There are no known disease issues affecting the Greater Glider in relation to the action. The action would be unlikely to increase the potential for significant disease vectors to affect local populations.

9. Interfere substantially with the recovery of the species

There is no recovery plan for the Greater Glider. However, broad conservation actions have been developed and include the following:

- Reduce the frequency and intensity of prescribed burns.
- Identify appropriate levels of patch retention, habitat tree retention, and logging rotation in hardwood production.
- Protect and retain hollow-bearing trees, suitable habitat and habitat connectivity.

The recovery of this species is best served by forestry prescriptions to protect and conserve habitat for this species. The proposal is not considered likely to interfere with the recovery of this species.

Conclusion

The Greater Glider will suffer a small reduction in extent of moderately suitable foraging habitat from the action. No breeding habitat will be affected. The action is unlikely to reduce the population size of the Greater Glider or decrease the reproductive success of this species. The action will not interfere with the recovery of the Greater Glider and will not contribute to the key threats to this species.

After consideration of the factors above, an overall conclusion has been made that the action is unlikely to result in a significant impact to the Greater Glider.

Swift Parrot (Lathamus discolor)

The Swift Parrot is endemic to south-eastern Australia and breeds only in Tasmania. It migrates to mainland Australia in autumn. The National Parks and Wildlife Service (2002) identifies the Swift Parrot as an irregular migrant to the Illawarra escarpment, coastal plain and plateau. There have been records of the Swift Parrot made from the Wollongong University campus in 2002 suggesting this species occasionally utilises the habitats. As such, the Swift Parrot is considered moderately likely to occur within the study area on an infrequent basis based on the presence of some marginally suitable foraging habitat and nearby records. No critical or high quality foraging habitats are present.

An action is likely to have a significant impact on a Critically Endangered or Endangered species if there is a real chance or possibility that it will:

1. Lead to a long-term decrease in the size of a population

The study area contains some potential foraging habitat for the Swift Parrot. While the habitat in the study area is not optimal, the loss of potential feed trees would directly affect the species opportunity to feed in the area. However, the study area is not considered a critical area for the Swift Parrot. The Swift Parrot may utilise trees in the study area for foraging intermittently when no other suitable inland (i.e. box ironbark woodlands) or coastal resources (i.e. Spotted Gum and Swamp Mahogany forests) are available. The action would remove potential foraging habitat for this species will be reduced by about 7.53 hectares. This is a small proportional impact considering the National Parks and Wildlife Service (2002a) has mapped 48 hectares of high quality habitat for the Swift Parrot in the region of the Illawarra escarpment, coastal plan and plateau. The impact to plantings and urban trees that may provide suitable foraging habitat for the Swift Parrot is around 4.88 hectares.

The Swift Parrot does not breed in the study area and the extent of habitat remaining in the study area would provide sufficient resources to sustain future visitation, such that the action is unlikely to lead to a long-term decrease in the size of the Australian population.

2. Reduce the area of occupancy of the species

As a specialist nectarivore dependent on flowering eucalypts, Swift Parrots are vulnerable to the loss of quantity and quality of key forage tree species. As a large-scale migrant, it has the ability to cover vast areas of its winter range, seeking suitable flowering eucalypt habitat. The species is an occasional visitor to the region and may utilise trees in the study area for foraging intermittently when no other suitable resources are available.

The proposal would contribute to the loss of potential foraging habitat that would reduce the area of habitat available. However, the action will not reduce the area of occupancy of this species, which is estimated at 4,000 km².

3. Fragment an existing population into two or more populations

Importantly, the action will not result in fragmentation of habitat for the Swift Parrot. The level of fragmentation likely to be caused will not affect large-scale migrants such as the Swift Parrot. This species is highly mobile and as a regular behaviour flies long distances over open areas to move between suitable foraging habitats. The action will not affect the movement of the Swift Parrot between habitat patches or fragment the population.

4. Adversely affect habitat critical to the survival of a species

Key habitats for this species on the coast and coastal plains of New South Wales include large stands of Spotted Gum (*Corymbia maculata*), Swamp Mahogany (*E. robusta*), Red Bloodwood (*Corymbia gummifera*) and Forest Red Gum (*E. tereticornis*) forests. The study area does not have forests of these species. The habitat within the study area is considered to be secondary or

supplementary habitat for the Swift Parrot as this species is not regularly recorded from the area and the area is not known as critical habitat.

5. Disrupt the breeding cycle of a population

The Swift Parrot is endemic to south-eastern Australia and breeds only in Tasmania, and migrates to mainland Australia in autumn. As such, the action will not impact on breeding habitat for this species. Important winter foraging grounds will not be impacted.

6. Modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline

Foraging habitat for this species will be reduced by about 7.53 hectares of PCTs and 4.88 ha of planted vegetation. As a large-scale migrant, it has the ability to cover vast areas of its winter range, seeking suitable flowering eucalypt habitat. The species is an occasional visitor to the region and may utilise trees in the study area for foraging intermittently when no other suitable resources are available. The action is unlikely to modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline.

7. Result in invasive species that are harmful to a Critically Endangered or Endangered species becoming established in the Endangered or Critically Endangered species' habitat

The main invasive species harmful to the habitat for the Swift Parrot are weeds that modify habitat and also other birds that are aggressive competitors. Noisy Miners are abundant in the habitat which may make the habitat less suitable for the Swift Parrot due to competitive exclusion. The action may result in weed invasion and the removal of habitat may concentrate local miner populations increasing competition. The management of invasive species would be managed under the construction environmental management plan and during operation.

8. Introduce disease that may cause the species to decline

Infection of native plants by *Phytophthora cinnamomi* has been identified as being spread by construction machinery. This water-borne mould infects the roots of plants and has the potential to cause dieback. Machinery associated with vegetation clearance and subsequent construction has the potential to transmit the fungus to remaining native vegetation remnants. This is a potential indirect impact to the species through the transmission of pathogens into retained habitat near the road. This can be mitigated through the development and implementation of suitable control measures for vehicle and plant hygiene and is unlikely to have a significant impact. It is the intention to use current best practice hygiene protocols as part of the CEMP to prevent the introduction or spread of pathogens.

The proposals mitigation strategy and environmental management procedures would include guidance for preventing the introduction and/or spread of disease causing agents such as bacteria and fungi.

9. Interfere with the recovery of the species

The National Recovery Plan for the Swift Parrot (Saunders and Tzaros, 2011) aims to prevent further population decline of the Swift Parrot and to achieve a demonstrable sustained improvement in the quality and quantity of Swift Parrot habitat to increase carrying capacity. These objectives will be achieved by implementing recovery actions for each of the following specific recovery objectives:

- Objective 1: To identify and prioritise habitats and sites used by the species across its range, on all land tenures.
- Objective 2: To implement management strategies to protect and improve habitats and sites on all land tenures

- Objective 3: To monitor and manage the incidence of collisions, competition and Beak and Feather Disease (BFD).
- Objective 4: To monitor population trends and distribution throughout the range.

These objectives, and the associated recovery actions outlined in the National Recovery Plan for the Swift Parrot (Saunders and Tzaros, 2011) are not applicable to the study area or proposal. The identified recovery actions mostly relate to identifying the extent and quality of habitat, monitoring, raising community awareness, and coordinating and reviewing the recovery process. There is an action relating to manage and protect Swift Parrot habitat at the landscape scale. However, this action applies to fencing off habitat on private land to encourage regeneration of habitat, revising forestry practices, developing a strategic management plan for Swift Parrot breeding habitat in Tasmania, and providing Swift Parrot conservation information for consideration during the New South Wales Local Government Local Environmental Planning review process. The recovery actions identified in the National Recovery Plan for the Swift Parrot (Saunders and Tzaros, 2011) will not be interfered with by the proposal.

Conclusion

The Swift Parrot will suffer a small reduction in extent of foraging habitat from the action. The action is unlikely to reduce the population size of the Swift Parrot or decrease the reproductive success of this species. The action will not interfere with the recovery of the Swift Parrot. For the Swift Parrot, impacts are most likely to be significant where a proposal or activity may result in loss of habitat in, or adjacent to priority foraging, nesting and roosting sites (Saunders and Tzaros, 2011). The proposal will not impact on any priority foraging habitat. As such, after consideration of the factors above, an overall conclusion has been made that the action is unlikely to result in a significant impact to the Swift Parrot.

Migratory species

An action is likely to have a significant impact on a migratory species if there is a real chance or possibility that it will:

1. Substantially modify (including by fragmenting, altering fire regimes, altering nutrient cycles or altering hydrological cycles), destroy or isolate an area of important habitat for a Migratory species
2. Result in an invasive species that is harmful to the Migratory species becoming established in an area of important habitat for the Migratory species, or
3. Seriously disrupt the lifecycle (breeding, feeding, migration or resting behaviour) of an ecologically significant proportion of the population of a Migratory species.

An area of ‘important habitat’ for a migratory species is defined as:

- habitat used by a migratory species occasionally or periodically within a region that supports an ecologically significant proportion of the population of the species, and/or
- habitat that is of critical importance to the species at particular life-cycle stages, and/or
- habitat used by a migratory species which is at the limit of the species range, and/or
- habitat within an area where the species is declining.

While migratory species of bird do use the study area and locality, the study area would not be classed as an ‘important habitat’ as defined under the EPBC Act Policy Statement 1.1 Significant Impact Guidelines (Department of Environment, 2013), in that the study area does not contain:

- a region that supports an ecologically significant proportion of a population of migratory species
- habitat utilised by a migratory species which is at the limit of the species range
- habitat within an area where the species is declining.

As such, it is unlikely that the action would significantly affect migratory species.

There is no evidence to suggest that an ecologically significant proportion of the population of any identified migratory species exists within the study area.

The potential for weed invasion has been considered highly likely with an action of this nature and appropriate controls will be provided during the construction and operation of the road to reduce

this threat in accordance with standard TfNSW procedures. The management of invasive species would be managed under the CEMP.

Annexure B – Mitigation measures

The following mitigation measures as outlined in the Biodiversity Guidelines: Protecting and managing biodiversity of RTA projects (NSW Roads and Traffic Authority, 2011) are recommended for implementation (see **Table B-1**). The NSW DPI (Fisheries) document Policy and Guidelines for fish habitat conservation and management (2013 update) (Department of Primary Industries, 2013) has also been used.

Table B-1 Mitigation measures

Impact	Mitigation measures	Timing and duration	Likely efficacy of mitigation	Residual impacts anticipated
Removal of native vegetation	Native vegetation removal will be minimised where reasonably practicable through detailed design.	Detailed design	Effective	The predicted residual impact to native vegetation is estimated at 7.53 ha
	Pre-clearing surveys will be undertaken in accordance with Guide 1: Pre-clearing process of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011).	Prior to construction	Effective	
	Vegetation removal will be undertaken in accordance with Guide 4: Clearing of vegetation and removal of bushrock of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011).	During construction	Effective	
	Native vegetation will be re-established in accordance with Guide 3: Re-establishment of native vegetation of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011).	Post construction	Effective	
	The unexpected species find procedure is to be followed under Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011) if threatened ecological communities that have not been assessed in the biodiversity assessment, are identified in the proposal site.	During construction	Proven	
Removal of threatened species	Habitat removal will be minimised where reasonably practicable through detailed design.	Detailed design	Effective	The predicted residual impact to threatened

habitat and habitat features	Habitat removal will be undertaken in accordance with Guide 4: Clearing of vegetation and removal of bushrock of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011).	During construction	Effective	species habitat is estimated at 7.53 ha of PCTs and 5.05 ha of planted vegetation
	Where required, habitat will be replaced or re-instated in accordance with Guide 5: Re-use of woody debris and bushrock and Guide 8: Nest boxes of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011).	During construction	Proven	
	The unexpected species find procedure is to be followed under Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011) if threatened fauna that have not been assessed in the biodiversity assessment are identified in the proposal site.	During construction	Proven	
Removal of threatened plants	Pre-clearing surveys will be undertaken in accordance with *Guide 1: Pre-clearing process* of the *Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects* (RTA 2011).	During construction	Proven	The predicted residual impact to threatened species habitat is estimated at 7.53 ha
	Exclusion zones will be set up at the limit of clearing in accordance with *Guide 2: Exclusion zones* of the *Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects* (RTA 2011).	During construction	Proven	
	The unexpected species find procedure is to be followed under Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011) if threatened flora species that have not been assessed in the biodiversity assessment are identified in the proposal site. This procedure is important to identify any threatened species that may germinate in disturbed areas during and after construction. *Rhodamnia rubescens*, *Senna acclinis* and *Solanum celatum* may be present as seed in the soil seed bank and as these species are disturbance	During construction	Proven	

	specialists, the work areas must be monitored to check whether these species germinate in areas of disturbed soil or topsoil stockpiles.			
Aquatic impacts	Aquatic habitat will be protected in accordance with *Guide 10: Aquatic habitats and riparian zones* of the *Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects* (RTA 2011) and Section 3.35.2 *Standard precautions and mitigation measures* of the *Policy and guidelines for fish habitat conservation and management Update 2013* (DPI (Fisheries NSW) 2013).	During construction	Effective	Minor, localised, modification to already highly disturbed habitat.
Groundwater dependent ecosystems	Interruptions to water flows associated with groundwater dependent ecosystems will be minimised through detailed design where possible.	Detailed design	Effective	No residual impact likely.
Changes to hydrology	Changes to existing surface water flows will be minimised through detailed design where possible.	Detailed design	Effective	Given that local hydrology is already significantly different from natural conditions, the changes associated unlikely to be significant.
Edge effects on adjacent native vegetation and habitat	Exclusion zones will be set up at the limit of clearing in accordance with *Guide 2: Exclusion zones* of the *Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects* (RTA 2011).	During construction	Effective	No residual impact is anticipated
Injury and mortality of fauna	Fauna will be managed in accordance with *Guide 9: Fauna handling* of the *Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects* (RTA 2011).	During construction	Effective	There is potential for injury and mortality of fauna due to the required vegetation clearing. The mitigation measures should be effective but injury or death to fauna may still occur

Invasion and spread of weeds	Weed species will be managed in accordance with *Guide 6: Weed management* of the *Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects* (RTA 2011).	During construction	Effective	None as the proposed control measures are known to be effective
Invasion and spread of pests	Design of roadside edges should be done in a manner that reduces potential foraging opportunities for deer (ie limit the amount of grassed areas adjacent to the road). Roads and Maritime will work with the South East Local Land Services Northern Illawarra Wild Deer Management program to determine if the study area is suitable for pre-clearing deer control.	Detailed design During construction	Effective	None as the proposed control measures are known to be effective
Invasion and spread of pathogens and disease	Pathogens will be managed in accordance with *Guide 2: Exclusion zones* of the *Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects* (RTA 2011).	During construction	Effective	None as the proposed control measures are known to be effective
Noise, light and vibration	Shading and artificial light impacts will be minimised through detailed design where possible.	Detailed design	Effective	Localised impacts from noise and light spill will remain.

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Appendix D

Biodiversity Investigation of Additional Areas report (Cardno 2022).

Our Ref: Letter Report – Biodiversity Investigations for MOI 27Apr2022

27 April 2022

Transport for NSW

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Wollongong NSW 2500

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MOUNT OUSLEY INTERCHANGE PROJECT – BIODIVERSITY INVESTIGATION OF ADDITIONAL AREAS

Cardno (now Stantec) has been engaged by Transport for NSW (TfNSW) to undertake an addendum Review of Environmental Factors (AREF) for the Mount Ousley interchange project (the project).

The project was assessed under Part 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). A Review of Environmental Factors (REF) was prepared and determined for the project on 10 November 2017. A biodiversity assessment report (BAR) was prepared by Jacobs in September 2017 to support the REF.

TfNSW proposes to modify the project through refinements to the approved concept design and additional construction works (proposed modification). Key features of the proposed modification would include:

- Additional utility works outside of the proposal area as defined in the REF at the following locations Northwood Road, Sunninghill Circuit, Dumfries Avenue, Binda Place, Dallas Street, Irvine Street, Madoline Street, and Northfields Avenue
- Addition of a traffic incident response facility located in the area adjacent to the commuter carpark that will provide faster response times to traffic incident in the area
- A proposed laydown area located within the western University of Wollongong Carpark
- Minor modifications to the proposal area in multiple locations to allow for a safe and adequate footprint for carrying out construction

The biodiversity assessment for the AREF includes an addendum BAR (addendum BAR) prepared by Jacobs on 4th April 2022 (Jacobs 2022) and this biodiversity investigation of additional areas prepared by Cardno on 27th April 2022. Together they assess all features of the proposed modification to be included in AREF.

Addendum biodiversity assessment report, Jacobs 2022

The initial proposed modification to the REF included all the key features listed above excluding:

Additional utility works in Binda Place, Dallas Street and Northfields Avenue. The addendum BAR (Jacobs 2022) assessed all features of the proposed modification to the REF aside from the above exclusion. The area assessed in the addendum BAR is referred to in this letter as the AREF study area.

Biodiversity investigation of additional areas, Cardno 2022

Since preparation of the addendum BAR (Jacobs 2022), additional features of the proposed modification have been identified. These features are located outside of the addendum BAR (Jacobs 2022) study area and include further utility works in Binda Place, Dallas Street and Northfields Avenue, and further modifications to the proposal

area at the proposed access to the University of Wollongong from the M1 Princes Motorway and Mount Ousley Road.

These features and areas have not been previously assessed for biodiversity, and therefore an assessment of ecological values within these additional areas is necessary to assess the impacts on the environment and inform the AREF including any additional safeguards or mitigations that may be recommended.

This letter provides an assessment of the biodiversity values of the additional areas required for the proposed modification and inclusion in the AREF study area (additional AREF study area). It also provides an assessment of the potential impacts that the construction and operation of these additions to the proposed modification would have on the surrounding biodiversity, as well as recommendations for mitigation. The likely impacts of the additions to the proposed modification have been assessed with reference to the findings of the Biodiversity Assessment Report (Jacobs 2017) and addendum BAR (Jacobs 2022).

Vegetation within the additional AREF study area consists of Roadside and Landscape Plantings, not considered to be consistent with any Plant Community Type. The Study Area does not contain any significant habitat or habitat features (such as tree hollows, or caves) considered to be important to any threatened entities. The additional AREF study area is not considered to have biodiversity values greater than those previously assessed in study areas of the BAR (Jacobs, 2017) and addendum BAR (Jacobs, 2022). Any direct or indirect impacts to the vegetation in the additional AREF study area will be restricted to the small area of Roadside and Landscape Plantings (0.3303 ha) and will not exacerbate any impacts associated with the previously assessed areas (REF study area and AREF study area). Consequently, no further assessment is required.

This letter should be read in conjunction with the project REF, BAR (Jacobs, 2017) and the addendum BAR (Jacobs, 2022).

The following section provides a breakdown of the methods, results, and conclusions. If you have any questions regarding this report, please do not hesitate to contact me.

[redacted]
for Cardno, now Stantec
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[redacted]

Methods

Field survey

The additional AREF study area **(Figure 1)** includes areas of:

- Binda Street,
- Dallas Street,
- UOW Ring Road,
- Northfields Avenue
- Sunninghill Circuit.

Inspections of the additional AREF study area were undertaken on 12 April 2022 by suitably qualified ecologist Annabelle McTaggart. The inspection was informed by the findings of the BAR (Jacobs 2017) and addendum BAR (Jacobs 2022).

A Random Meander (RM) and Rapid Biodiversity Assessment (RBA) was conducted to ground-truth vegetation mapping and identify potential habitat in the additional AREF study area. Biodiversity values and

conditions within the additional AREF study area were recorded. Field data was used to generate an updated map of the vegetation communities in the additional AREF study area. Incidental flora observations were also recorded.

Fauna habitat features were collected as part of the site inspections. The availability and quality of habitat within the additional AREF study area was assessed with respect to the following factors:

- Flora diversity and structure
- Type and extent of habitat types
- Habitat connectivity, including continuity with similar habitats within the additional AREF study area
- Occupancy of key habitat features including hollow-bearing trees and creeks, where possible
- Degree of disturbance and degradation
- Topographic features such as aspect and slope.

Fauna encountered opportunistically during the site inspection were recorded.

Survey limitations

Survey efficacy is influenced by a range of factors. For this type of survey, such limitations are generally due to a single, short duration survey that does not account for seasonal variation. Given the short period of time spent on site, the detection of certain species may be affected by:

- Seasonal migration (particularly migratory birds)
- Seasonal flowering periods (some species are cryptic and are unlikely to be detected outside of the known flowering period)
- Seasonal availability of food, such as blossoms for some fauna
- Weather conditions during the survey period (some species may go through cycles of activity related to specific weather conditions, for example some microchiropteran bats, reptiles and frogs can be inactive during cold weather)
- Species lifecycle (cycles of activity related to breeding).

These potential limitations have been addressed by applying the precautionary principle in cases where the survey methodology may have given a false negative result (e.g. a species that could reasonably be expected to occur, based on previous records and available habitat, was not observed). All species have been assessed on the basis of the presence of their habitat and the likely significance of that habitat to a viable local population.

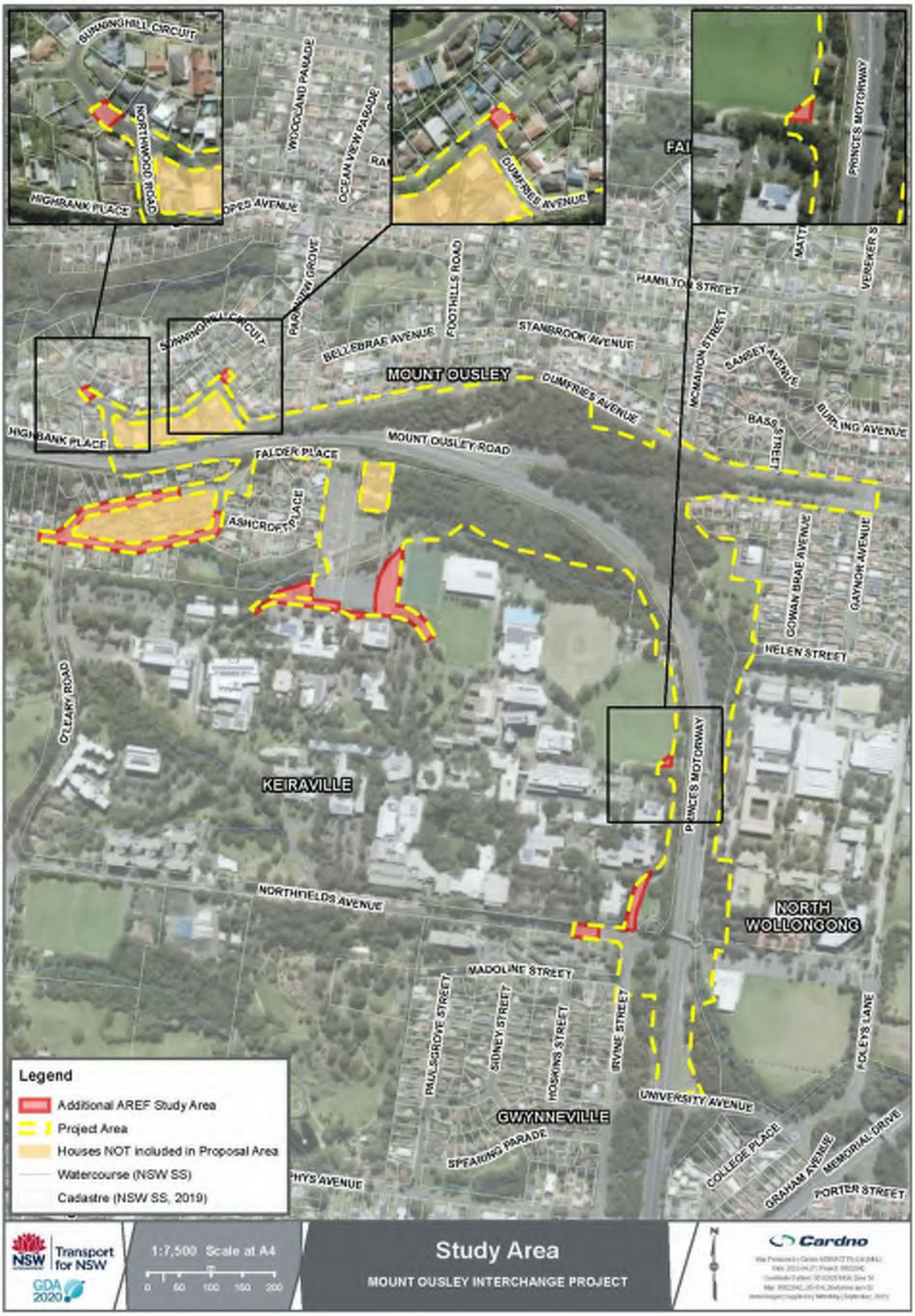
BURNINGHILL CIRCUIT
NORTHWOOD ROAD
HIGHBANK PLACE
WOODLAND PARADE
OCEAN VIEW PARADE
DUMFRIES AVENUE
PRINCES MOTORWAY
HAMILTON STREET
FARMSTEAD GROVE
FOOTHILLS ROAD
STANBROOK AVENUE
BELLEBRAE AVENUE
MOUNT OUSLEY
DUMFRIES AVENUE
MCMAHON STREET
SARSEY AVENUE
BURLING AVENUE
BASS STREET
MOUNT OUSLEY ROAD
FALDER PLACE
ASHCROFT PLACE
COWAN BRAE AVENUE
GAYNOR AVENUE
HELEN STREET
O'LEARY ROAD
KEIRAVILLE
NORTHFIELDS AVENUE
NORTH WOLLONGONG
MADOLINE STREET
PAULSGROVE STREET
SIDNEY STREET
HOSKINS STREET
IRVINE STREET
FOLEYS LANE
UNIVERSITY AVENUE
GWYNNEVILLE
SPEARING PARADE
COLLEGE PLACE
GRAHAM AVENUE
MEMORIAL DRIVE
PORTER STREET
Legend
Additional AREF Study Area
Project Area
Houses NOT included in Proposal Area
Watercourse (NSW SS)
Cadastre (NSW SS, 2019)
Transport for NSW
GDA 2020
1:7,500 Scale at A4
0 50 100 150 200
Study Area
MOUNT OUSLEY INTERCHANGE PROJECT
Cardno

Figure 1

Results

Summary of biodiversity values within the REF and AREF study areas

The results of the BAR (Jacobs 2017) and addendum BAR (Jacobs 2022) undertaken in the project area prior to the additions to the proposed modification (REF study area and AREF study area) are outlined below.

Vegetation within the REF study area and AREF study area are comprised of two PCTs in moderate to good condition, areas of roadside and landscaped natives and disturbed areas dominated by weeds. The two PCTs that occur within the REF study area and AREF study area are:

- Blackbutt - Turpentine - Bangalay moist open forest on sheltered slopes and gullies, southern Sydney Basin Bioregion (PCT 694)
- Sydney Blue Gum x Bangalay – Lilly Pilly moist forest in gullies and on sheltered slopes, southern Sydney Basin Bioregion (PCT 1245).

Neither PCT recorded in the REF and AREF study area is associated with a Threatened Ecological Community (TEC) and no TECs have been recorded in the REF study area or AREF study area.

The REF study area and AREF study area provide suitable habitat for a range of threatened species listed under the (BC Act) and/or (EPBC Act) including:

- *Senna acclinis*
- *Rhodamnia rubescens*
- *Solanum celatum*
- Gang-gang Cockatoo *(Callocephalon fimbriatum*
- Varied Sittella *(Daphoenositta chrysoptera)*
- Little Lorikeet *(Glossopsitta pusilla)*
- Swift Parrot *(Lathamus discolor)*
- Powerful Owl *(Ninox strenua)*
- Large Bent-winged Bat *(Miniopterus magnater)*– recorded in the REF study area (Jacobs 2017)
- Little Bent-winged Bat *(Miniopterus australis)*– recorded in the REF study area (Jacobs 2017)
- Grey-headed Flying-fox *(Pteropus poliocephalus)* – recorded in the REF study area (Jacobs 2017)
- Greater Glider *(Petauroides volans).*

The REF study area and AREF study area included around 7.53 hectares of suitable habitat for threatened flora species *Senna acclinis*, *Solanum celatum* and *Rhodamnia rubescens*. These species were not recorded during targeted surveys. Several threatened flora species were detected in the REF study area and AREF study area (*Eucalyptus nicholii, Eucalyptus scoparia, Syzygium paniculatum*), however these were determined to be planted (Jacobs 2017).

The assessment of significance assessed under both the BC Act and EPBC Act concluded that the proposed works in the REF study area and AREF study area were unlikely to significantly affect relevant threatened biodiversity values.

Existing environment within the additional AREF study area

Vegetation

Vegetation within the additional AREF study area consisted of 0.33 hectares of Roadside and Landscape Plantings, not considered to be commensurate with any Plant Community Type (PCT), see **Figure 2.** The total area of native vegetation across the entire project area (10.46 hectares) remains consistent with the BAR (Jacobs 2017) and addendum BAR (Jacobs, 2022).

Vegetation along Ring Road and within the grounds of the University of Wollongong consisted of sparse stands of established planted trees including *Eucalyptus canaliculata, Eucalyptus pilularis,* and *Syncarpia glomulifera,* and an understorey of native plantings including *Lomandra longifolia, Westringia fruiticosa* and *Dichondra repens* species **(Figure 3 and Figure 4).**

Vegetation along the residential streets, including Northfields Avenue, Sunninghill Circuit, Binda Place and Dallas Street consisted of maintained lawns, typically Kikuyu or Buffalo grass, street trees including *Melaleuca stypheloides* and *Callistemon citrinus* species, and landscaped gardens **(Figure 5 to Figure 8).**

No TECs were recorded in the additional AREF study area.

Figure 2 Vegetation types within the additional AREF study area

Figure 3 Vegetation along Ring Road

Figure 4 Vegetation along the edge of the Ring Road Carpark

Figure 5 Northfields Avenue, looking east

Figure 6 Sunninghill Circuit, western end

Figure 7 Sunninghill Circuit, eastern end

Figure 8 Dallas Street

Flora Species

A total of 51 flora species were recorded within the additional AREF study area, including 32 native species (63%) and 19 exotics (37%) across 28 families. The most diverse families were Myrtaceae (13 species) and Poaceae (5 species).

No threatened flora was detected during the field survey and potential habitat for threatened flora species is considered unlikely to occur due to the level of maintenance and disturbance present.

A full list of flora species recorded within the additional AREF study area during the field survey is provided within **Appendix A**.

Weeds

A total of 19 exotics were recorded within the additional AREF study area during the field survey. These were spread throughout the study area. 11 of the weeds recorded within the additional AREF study area have been listed at a State and/or Commonwealth level. The following identifies weed categorisation and legislative context of each species:

- Priority Weed (PW) – Identified within the Local Government Area under the NSW *Biosecurity Act* 2015. Each species identified has specific biosecurity duties to be considered.
- Weeds of National Significance (WoNS) – Identified by the Commonwealth Government.
- High Threat Exotics (HTE) – Identified under the Biodiversity Assessment Method (BAM) under the *Biodiversity Conservation Act 2016*.

Table 1 identifies these species and their legislative context.

Table 1 State and/or Commonwealth Listed Exotic Species

Scientific Name	Common Name	Legislative Context		
		PW	WoNS	HTE
Asparagus aethiopicus	Asparagus Fern	✓ Prohibition on dealings: Must not be imported into the State or sold.	✓	✓
Lantana camara	Lantana	✓ Prohibition on dealings: Must not be imported into the State or sold.	✓	✓
Araujia sericifera	Mothvine	-	-	✓
Bidens Pilosa	Cobbler's Pegs	-	-	✓
Senna pendula var. glabrata	-	-	-	✓
Fraxinus angustifolia subsp. angustifolia	Desert Ash	-	-	✓
Ehrharta erecta	Panic Veldtgrass	-	-	✓
Paspalum dilatatum	Paspalum	-	-	✓

Pennisetum clandestinum	Kikuyu, Kikuyu Grass	-	-	✓
Stenotaphrum secundatum	Buffalo Grass	-	-	✓
Cardiospermum grandiflorum	Balloon Vine, Love in a Puff	-	-	✓

It is noted that under the NSW *Biosecurity Act 2015* that all landowners have the obligation to manage weeds as per the General Biosecurity Duty which states "All plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable".

Fauna Species

A total of 14 fauna species were detected within the additional AREF study area during the field survey. All but one of the fauna species were native (Common Myna, *Sturnus tristis*). The most frequently detected fauna were birds common to the area including the Noisy Miner (*Manorina melanocephala*), Australian Magpie (*Cracticus tibicen*) and Magpie-lark (*Grallina cyanoleuca*).

One reptile (Eastern Water-skink, *Eulamprus quoyii*) was encountered during the field survey. No amphibians or mammals were encountered during the field survey.

No threatened fauna species were detected during the field survey.

Three threatened fauna species were previously recorded in the REF study area and AREF study area including the Grey-headed Flying Fox (*Pteropus poliocephalus*) (listed vulnerable under the BC Act and EPBC Act), Large Bent-winged Bat (*Miniopterus orianae oceanensis*) and Little Bent winged Bat (*Miniopterus australis*) (both listed vulnerable under the BC Act) (Jacobs 2017). *Eucalypts* present within the additional AREF study area may provide marginal foraging habitat for the Grey-Headed Flying Fox. The habitat to be cleared forms part of a matrix of foraging habitat for the Grey-Headed Flying Fox and the extent of habitat removal is small and considered unlikely to greatly affect foraging opportunities in the locality. No suitable roosting habitat features (such as caves, tree hollows and culverts) for the Large Bent-winged Bat or Little Bent winged Bat were observed within the additional AREF study area.

As per the BAR and addendum BAR, six additional threatened fauna species were considered moderately likely to occur in the REF study area and AREF study area. These species included:

- Gang-gang Cockatoo (*Callocephalon fimbriatum*; listed vulnerable under the BC Act)
- Varied Sittella (*Daphoenositta chrysoptera*; listed vulnerable under the BC Act)
- Little Lorikeet (*Glossopsitta pusilla;* listed vulnerable under the BC Act)
- Swift Parrot (*Lathamus discolor*; listed endangered under the BC Act and critically endangered under the EPBC Act)
- Powerful Owl (*Ninox strenua*; listed vulnerable under the BC Act)
- Greater Glider (*Petauroides volans*; listed vulnerable under the EPBC Act)

These species are more likely to be associated with the higher quality habitat within the REF study area considered to be commensurate with a PCT. Trees within the additional AREF study area may provide marginal foraging habitat for some species, however potential habitat within the additional AREF study area would only be used intermittently and is not considered a key resource for any of these species.

Fauna Habitat

No hollow-bearing or habitat trees were detected within the additional AREF study area. No bird nests, possum dreys or other evidence of fauna habitat features were found in the additional AREF study area.

The habitat values of the additional AREF study area have been summarised in **Table 2.**

Table 2 Fauna Habitat Values

Habitat Value	Description
Foraging habitat	Trees within the additional AREF study area may provide marginal foraging habitat for arboreal mammals, Flying Foxes and nectarivorous birds. However, these resources are not limited in the

Habitat Value	Description
	locality and no threatened species is considered to be dependent on these resources for their long term survival.
Connectivity	As per the 2017 BAR and 2022 addendum BAR, the connectivity of the additional AREF study area is fragmented by roadways and noise walls. The vegetated areas within the additional AREF study area are relatively sparse and small in size and do not contribute significantly to the current connectivity of the area.
Burrows, nests and other fauna habitat	No hollow-bearing trees, stags, burrows or rocky outcrops were detected within the additional AREF study area. Due to the absence of these features, important habitat for threatened species known from the local area is not considered to be present within the additional AREF study area.
Leaf litter	Leaf litter represents habitat for fauna species and would contribute to organic matter cycle in the system. Sparse cover of leaf litter was present across some of the additional AREF study area.
Logs	Logs may provide habitat and temporary refuge to fauna species (e.g. reptiles, amphibians and insects). No fallen trees or logs were present within the additional AREF study area.
Human-made fauna habitat	No Human-made fauna habitat was present within the additional AREF study area.
Aquatic Habitat	No aquatic habitat was present within the additional AREF study area.

Impact Assessment

The likely impacts of the proposed modification have been assessed with reference to the findings of the BAR (Jacobs 2017) and addendum BAR (Jacobs 2022). The construction and operational impacts of these assessments and their applicability to the additional AREF study area have been addressed in **Table 3.**

Table 3 Potential impacts

Impact	BAR (Jacobs 2017), addendum BAR (Jacobs 2022)	Does the proposed modification within the additional AREF study area significantly increase the level of impact?
Construction impacts		
Removal of Native Vegetation	Removal of ~7.53 hectares of native vegetation and ~5.05 hectares of roadside and landscape plantings.	No. The additional AREF study area consists of 0.3303 ha of roadside and landscape plantings and no PCTs will be impacted.
Removal of Threatened Flora	Impact to potential habitat but only planted specimens impacted by direct removal.	No. No threatened flora were recorded in the additional AREF study area. The additional AREF study area is unlikely to provide habitat due to the level of landscape maintenance/ disturbance.
Removal of Threatened Fauna	Removal of marginal habitat, including hollow bearing trees identified in the 2017 surveys.	No. No hollow bearing trees or other habitat considered critical to the survival of threatened species was recorded within the additional AREF study area.
Aquatic Impacts	Modification of some limited aquatic habitat. Significant impacts are unlikely.	No. No aquatic environments occur within the additional AREF study area.
Injury and mortality	Risk of direct impacts due to vehicle collision and habitat loss.	No. The impacts will remain the same despite the proposed modification, as they are associated with activities previously assessed.
Indirect/ operational impacts		

Impact	BAR (Jacobs 2017), addendum BAR (Jacobs 2022)	Does the proposed modification within the additional AREF study area significantly increase the level of impact?
Wildlife connectivity and habitat fragmentation	The connectivity of the REF study area is fragmented by roadways and noise walls.	No. The vegetated areas within the areas of proposed modification are relatively sparse and small in size and do not contribute significantly to the current connectivity of the area.
Edge effects on adjacent native vegetation and habitat	The area is already subject to a high level of edge effects. Some areas may be introduced to minor edge effects.	No. The areas within the additional AREF study area are already modified and subject to a high level of edge effects.
Invasion and spread of weeds	Potential impacts associated with earthworks, movement of soil and machinery during all project phases.	No. The impacts will remain the same despite the proposed modification, as they are associated with activities previously assessed.
Invasion and spread of pests	Potential for dispersal during construction activities.	No. The impacts will remain the same despite the proposed modification, as they are associated with activities previously assessed.
Invasion and spread of pathogens and disease	Potential impacts associated with earthworks, movement of soil and machinery during all project phases.	No. The impacts will remain the same despite the proposed modification, as they are associated with activities previously assessed.
Changes to hydrology	Some minor changes controlled through mitigation measures.	No. The small scale of the additional AREF study area would not cause changes greater than the low magnitude, localised effects described in the REF
Noise, light and vibration	Existing noise, light and vibration are already present.	No. The small scale of the additional AREF study area would not cause increases in noise, light and vibration above the magnitude described in the REF.
Groundwater dependent ecosystems	Minor local impacts may occur but permanent damage is unlikely.	No. The abundance of vegetation within the additional AREF study area is relatively minor and therefore unlikely to cause major alterations to groundwater conditions.

Given the small scale of the proposed modifications and the landscaped and highly modified nature of the existing environment, the proposed modification within the Additional study area are unlikely to contribute to the exacerbation of impacts to biodiversity previously assessed (Jacobs 2017, 2022). There are no additional impacts associated with the additions to the proposed modification.

Mitigation Measures

As the additions to the proposed modification are not likely to increase impacts presented in the BAR (Jacobs 2017) and addendum BAR (Jacobs 2022), no changes are required to the environmental safeguards and measures previously proposed (Jacobs 2017).

Conclusion

Vegetation within the additional AREF study area is comprised of 0.3303 ha of Roadside and Landscape plantings, not considered to be commensurate with any Plant Community Type (PCT). The total area of native vegetation across the entire project area (10.46 hectares) remains consistent with the BAR (Jacobs 2017). No TECs or threatened flora or fauna were recorded within the additional AREF study area. Several

native fauna species may occur within the additional AREF study area due to the marginal foraging habitat provided, however potential habitat for these species would only be used intermittently and is not considered a key resource. No other major habitat features such as hollow-bearing trees, nests, or burrows were detected within the additional AREF study area. As a result, the biodiversity values presented within the additional AREF study area are not considered to be greater than those previously assessed within the REF study area (Jacobs 2017) and AREF study area (Jacobs, 2022).

Given the additional AREF study area does not equate to the vegetation and habitat quality of other areas within the REF study area and AREF study area, the additional AREF study area is not considered to provide habitat for any species previously assessed as having a low likelihood of occurrence. Additionally, the proposed modification is not considered likely to cause a significant increase to the impacts of the project and therefore the previous assessments of significance remain valid. No further assessment is required.

A

Flora species detected within the additional AREF study area during the site inspection

Family	Scientific Name	Common Name	Native/Exotic	BC Act	EPBC Act
Apiaceae	*Cyclospermum leptophyllum*	Slender Celery	E	-	-
Arecaceae	*Livistona australis*	Cabbage Tree Palm	N	-	-
Asclepiadaceae	*Araujia sericifera*	Mothvine	E, HTE	-	-
Asparagaceae	*Asparagus aethiopicus*	Asparagus Fern	E, WoNS, PW, HTE	-	-
Asteraceae	*Bidens Pilosa*	Cobbler's Pegs	E, HTE	-	-
	Conyza bonariensis	Flax-leaf Fleabane	E	-	-
	Sonchus oleraceus	Common Sow-thistle	E	-	-
Caryophyllaceae	*Stellaria media*	Common Chickweed	E	-	-
Casuarinaceae	*Allocasuarina torulosa*	Forest Oak	N	-	-
Commelinaceae	*Commelina cyanea*	Scurvy Weed, Native Wandering Jew	N	-	-
Convolvulaceae	*Dichondra repens*	Kidney Weed	N	-	-
Dilleniaceae	*Hibbertia scandens*	Climbing Guinea Flower	N	-	-
Doryanthaceae	*Doryanthes excelsa*	Gymea Lily	N	-	-
Euphorbiaceae	*Euphorbia peplus*	Petty Spurge	E	-	-
	Homalanthus populifolius	Bleeding Heart	N	-	-
Fabaceae/Cesalpinioideae	*Senna pendula var. glabrata*	-	E, HTE	-	-
Fabaceae/Faboideae	*Glycine clandestina*	Twining Glycine	N	-	-
	Hardenbergia violacea	False Sarsparilla	N	-	-
	Trifolium repens	White Clover	E	-	-
Lamiaceae	*Westringia fruiticosa*	Coast Westringia, Coastal Rosemary	N	-	-
Lomandraceae	*Lomandra longifolia*	Spiky-headed Mat-rush	N	-	-

Malvaceae	*Sida rhombifolia*	Paddy's Lucerne	E	-	-
Moraceae	*Ficus rubiginosa*	Port Jackson Fig	N	-	-
Myrtaceae	*Acmena smithii*	Lillypilly	N	-	-
	Angophora costata	Smooth-barked Apple	N	-	-
	Callistemon citrinus	Crimson Bottlebrush	N	-	-
	Callistemon linearis	Narrow-leaved Bottlebrush	N	-	-
	Corymbia gummifera	Red Bloodwood	N	-	-
	Eucalyptus canaliculata	Large Fruited Grey Gum	N	-	-
	Eucalyptus haemastoma	Broad-leaved Scribbly Gum	N	-	-
	Eucalyptus paniculata	Grey Ironbark	N	-	-
	Eucalyptus pilularis	Blackbutt	N	-	-
	Melaleuca linariifolia	Snow in Summer	N	-	-
	Melaleuca stypheloides	Prickly-leaved Tea Tree	N	-	-
	Syncarpia glomulifera	Turpentine	N	-	-
	Tristania neriifolia	Water Gum	N	-	-
Oleaceae	*Fraxinus angustifolia subsp. angustifolia*	Desert Ash	E, HTE	-	-
Phyllanthaceae	*Glochidion ferdinandi var. ferdinandi*	Cheese Tree	N	-	-
Pittosporaceae	*Pittosporum undulatum*	Sweet Pittosporum	N	-	-
Poaceae	*Ehrharta erecta*	Panic Veldtgrass	E, HTE	-	-
	Imperata cylindrica	Blady Grass	N	-	-
	Paspalum dilatatum	Paspalum	E, HTE	-	-

	Pennisetum clandestinum	Kikuyu, Kikuyu Grass	E, HTE	-	-
	Stenotaphrum secundatum	Buffalo Grass	E, HTE	-	-
Proteaceae	*Banksia integrifolia*	Coast Banksia	N	-	-
	Banksia marginata	Silver Banksia	N	-	-
	Grevillea 'Robyn Gordon'	Grevillea cultivar	N	-	-
Sapindaceae	Cardiospermum grandiflorum	Balloon Vine, Love in a Puff	E, HTE	-	-
Solanaceae	*Solanum nigrum*	Black Nightshade, Black-berry Nightshade	E	-	-
Sterculiaceae	*Brachychiton acerifolius*	Illawarra Flame Tree	N	-	-
Verbenaceae	*Lantana camara*	Lantana	E, WoNS, PW, HTE	-	-

Key: BC Act = *Biodiversity Conservation Act 2016*, EPBC Act = *Environment Protection and Biodiversity Conservation 1999*, N = Native, E = Exotic, PW = Priority Weed under the *Biosecurity Act 2015*, WoNS = Weed of National Significance, HTE = High Threat Exotic

Fauna species detected within the additional AREF study area during the site inspection

Family	Scientific Name	Common Name	BC Act	EPBC Act	Observation
Aves					
Anatidae	*Anas superciliosa*	Pacific Black Duck	-	-	Seen
Anatidae	*Chenonetta jubata*	Australian Wood Duck	-	-	Seen
Artamidae	*Cracticus tibicen*	Australian Magpie	-	-	Heard/ Seen
Campephagidae	*Coracina novaehollandiae*	Black-faced Cuckoo-shrike	-	-	Seen
Charadriidae	*Vanellus miles*	Masked Lapwing	-	-	Heard/ Seen
Corvidae	*Corvus coronoides*	Australian Raven	-	-	Heard/ Seen
Meliphagidae	*Manorina melanocephala*	Noisy Miner	-	-	Heard/ Seen
Monarchidae	*Grallina cyanoleuca*	Magpie-lark	-	-	Heard/Seen

Psittacidae	*Alisterus scapularis*	Australian King-Parrot	-	-	Heard/ Seen
	Platycercus elegans	Crimson Rosella	-	-	Heard/ Seen
	Trichoglossus haematodus	Rainbow Lorikeet	-	-	Seen
Sturnidae	*Sturnus tristis**	Common Myna	-	-	Heard/ Seen
Timaliidae	*Zosterops lateralis*	Silvereye	-	-	Seen
Reptilia					
Scincidae	*Eulamprus quoyii*	Eastern Water-skink	-	-	Seen

Key: BC Act = *Biodiversity Conservation Act 2016*, EPBC Act = *Environment Protection and Biodiversity Conservation 1999. *= introduced species.*

Appendix E

Preliminary Site Investigation (PSI) (Cardno 2022)

Preliminary Site Investigation - Draft

Mt Ousley Interchange

80022042

Prepared for
Transport for NSW

3 May 2022

Cardno

now

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Executive Summary

Transport for NSW (TfNSW) is planning to upgrade the interchange on the M1 Princes Motorway with Mount Ousley Road into a grade-separated interchange. This project will improve road safety, travel times and accommodate the efficient movement of future traffic and freight growth on a route that services more than 50,000 vehicles per day.

Cardno (now Stantec) was engaged by TfNSW to prepare specialist studies to support the design and construction management of the proposed upgrades. The studies included a Preliminary Site Investigation (PSI) for the Study Area as shown in **Figure 1 and 2, Appendix A** and described in detail within this report.

The purpose of this report is to provide TfNSW with information on the contamination status on the lands within the Study Area and guide future actions.

The objectives of the PSI were to assess whether contamination has the potential to exist on the site and whether further investigation is needed.

The assessment included a site walkover by two experienced environmental scientists from Cardno and a review of available historical information (including previous reports, NSW EPA records and historical aerial photographs), and preparation of a conceptual site model based on our understanding of the site from these activities. Based on the results of this assessment the following known contaminating sources and activities have been identified:

- Buried utilities containing asbestos, in particular near University Ave overpass;
- Acid sulphate soils and rock, in soils in low-lying areas and where Illawarra Coal Measure formation rock is intersected;
- Asphalt pavement containing coal tar;
- Fluid spills and vehicle fires as identified in **Figure 5, Appendix A** and general motorway usage; and
- Fly-tipping, uncontrolled filling, stockpiling, dam construction, creek line filing, road construction and associated activities, in particular associated with site levels in UoW lands (i.e. P5 carpark), and between Dumfries Ave and the M1 Motorway.

The following additional activities were identified but are considered to have a low risk of causing contamination on the site:

- Historical construction compound in lands north of TAFE Wollongong;
- Chemical and fuel storage – Building 31b of UoW; and
- Mount Ousley Substation.

Based on potentially completed source-pathway-receptor linkages these sources are considered to pose a potential risk to the following receptors:

- Current and future workers within the study area;
- General public accessing the area for recreation purposes (i.e. exercise);
- Soil and surface water dependent biota;
- Downgradient surface and groundwater users – ecological and human; and
- Site structures due to acid generation by potential ASS.

The identified potential sources of contamination have been preliminarily classified as having a low or medium likelihood of complete exposure pathway for human and ecological receptors. Despite this, the information provided in this report is preliminary in nature and has not confirmed actual conditions or potential contaminant concentrations through sampling and analysis of potentially impacted media. As a result, the suitability of the study area for the proposal has not been determined and a full characterisation of the associated construction risks has not been completed.

Recommendations

Subject to the limitations provided in **Section 7**, the following recommendations should be considered to gather further information to allow for the identification and management of potential contamination issues, to consider the suitability of the study area for the proposed land use, to inform design, and for consideration during future development and construction of the study area:

- Undertake a Detailed Site Investigation. The investigation strategy should be sufficient to determine if a risk to human and ecological receptors exists as a result of proposed works, whether there is the potential for off-site migration of any identified contamination and/or if management and consideration is required during construction.
  - The assessment may need to consider a variety of assessment approaches depending on the intended use of areas within and adjacent to the study area, such as ancillary compounds to be established and handed-back at the end of construction (i.e. before and after construction due diligence to determine if rectification works are required), or areas along the road corridor that are not to be disturbed by construction.
  - Specific targets for intrusive assessment based on the construction footprint identified in this PSI included:
    - Potential fill areas and impact in lands between Dumfries Ave and the M1 Motorway;
    - Fill areas in the vicinity of P5 carpark at UoW; and
    - The historical compound located in cleared land north of TAFE Wollongong
  - General targets that may be wisespread or not known at this stage include:
    - Impacts from the historical motorway usage which are likely constrained to areas adjacent and downgradient of the motorway; and
    - Coal tar in asphalt in the exisiting roads and motorway surfaces.
- Undertake a hazardous building materials assessment of structures within the study area which may be disturbed or demolished by the development to identify hazardous materials which may be disturbed as part of the proposed site redevelopment. This could include service pits and conduits throughout the alignment and residential structures along Mount Ousley Road however it is Cardno's understanding that these structures are not being impacted as part of the proposal.

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Appendices

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1 Introduction

Transport for NSW (TfNSW) is planning to upgrade the interchange on the M1 Princes Motorway with Mount Ousley Road into a grade-separated interchange. This project will improve road safety, travel times and accommodate the efficient movement of future traffic and freight growth on a route that services more than 50,000 vehicles per day.

Cardno (now Stantec) was engaged by TfNSW to prepare specialist studies to support the design and construction management of the proposed upgrades. The studies included a Preliminary Site Investigation (PSI) for the Study Area as shown in **Figure 1 and 2, Appendix A** and described in detail within this report.

1.1 Purpose and objectives

The purpose of this report is to provide TfNSW with information on the contamination status on the lands within the Study Area and guide future actions.

The objectives of the PSI were to assess whether contamination has the potential to exist on the site and whether further investigation is needed.

1.2 Scope of work

The following scope of work was undertaken in order to achieve the above noted objectives:

- A site walkover by an experienced environmental professional to identify potential sources of contamination;
- A desktop site history review including the following sources:
  - Collection of historic data by LotSearch;
  - NSW Environment Protection Authority (EPA) contaminated land public register and the Public Register under Section 308 of the Protection of the Environment Operations Act 1997;
  - Local and regional geology, hydrogeology, topography and hydrology;
  - Groundwater data available for the area;
  - Historic aerial photographs;
  - Current and historic land title information; and
  - Services and utilities plan review.
- Preparation of a PSI report in accordance with the *Consultants reporting on contaminated land, Contaminated land guidelines* (NSW EPA, 2020) and *National Environment Protection (Assessment of Site Contamination) Measure* (NEPC, 2013).

1.3 Applicable guidelines and legislation

This PSI investigation was completed in consideration of the following guidelines made or approved by the NSW Environment Protection Authority (EPA) under section 105 of the CLM Act 1997 and legislation:

- Contaminated Land Management Act 1997 (CLM Act)
- Protection of the Environment Operations Act 1997 (PoEO Act)
- National Environment Protection (Assessment of Site Contamination) Measure (NEPM), amended 2013 (NEPC, 2013)
- NSW Department of Urban Affairs and Planning Managing Land Contamination: Planning Guidelines: SEPP 55 Remediation of Land (NSW DUAP, 1998)
- NSW EPA Waste Classification Guidelines (NSW EPA, 2014)
- NSW Environment Protection Authority Guidelines for the NSW Site Auditor Scheme, 3rd Edition (NSW EPA, 2017)
- NSW EPA Consultants reporting on contaminated land; Contaminated land guidelines (NSW EPA, 2020)

- Guidelines for the Assessment and Management of Groundwater Contamination, (Department of Environment and Conservation NSW 2007)
- Guidelines on the Duty to Report Contamination under the Contamination Land Management Act 1997 (NSW EPA 2015).

2 Site description and surrounding environment

2.1 Site information

Details related to the Site are included in **Table 2-1**, below whilst **Figure 1 and 2, Appendix A** shows the site locality in the context of the local area.

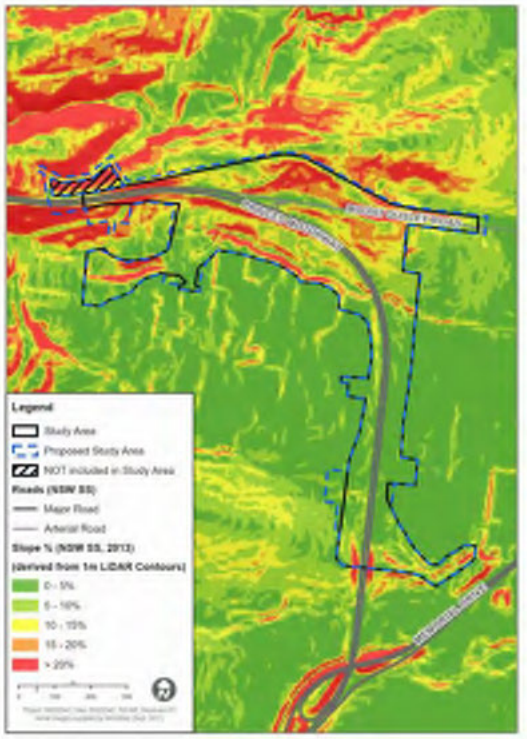
Table 2-1 Site Information

Details	Comments			
Site address	M1 Princes Motorway between Highbank Place and University Avenue overpass, Mt Ousley, Kieraville and Gwynneville, NSW			
Lot and Deposited Plan	**Lot**	**DP**	**Whole or Part**	**Controlling Authority**
	2	DP1081811	Whole	NSW Government
	4	DP843929	Partial	Freehold
	1	DP507865	Partial	Freehold
	2	DP657234	Whole	Freehold
	1	DP1188267	Partial	Freehold
	1	DP114825	Whole	Freehold
	222	DP826710	Whole	Freehold
	-	SP46495	Whole	Freehold
	100	DP234188	Whole	Freehold
	5	DP843929	Partial	Freehold
	1	DP657233	Whole	Freehold
	B	DP160371	Whole	Freehold
	A	DP160371	Whole	Freehold
	1	DP1172481	Whole	Freehold
Local Government Authority (LGA)	Wollongong City Council			
Current land use	Motorway and associated infrastructure, roadside verge, University of Wollongong (UoW), TAFE Wollongong			
Proposed land use	Unchanged			
Surrounding land use	Low density residential, sporting fields and tertiary education			
Current Zoning - Wollongong Local Environment Plan (2009)	R2 – Low Density Residential RE1 – Public Recreation SP2 – Infrastructure			
Site Area	391,963 m^2			
Site Coordinates – Bounding Box (GDA2020 MGA 56)	**North:** 6,191,401.4519 **South:** 6,190,201.8487 **West:** 304,648.3200 **East:** 305,746.2761			

2.2 Site description

Site information from publically available data sets is summarised below in **Table 2-2**.

Table 2-2 Site description from public datasets

Item	Information
Site topography and drainage features (NSW DFSI, Spatial Services)	Overall the site has a gentle grade to the east with the western extent of the site steeply sloping east while the eastern extent of the site is generally level but is intersected by two eastward flowing creeks. The first of these creeks is adjacent south of the Mt Ousley Road intersection while the other is adjacent east of the University Ave interchange. All surface water from the site is expected to drain through these creeks. Based on o bservations onsite, all stormwater systems have been constructed to feed into these creeks.  Figure 2-1: Site slope %
Nearby water bodies (NSW DFSI, Spatial Services)	As noted above, the site is intersected by two creek lines. The southern creek is a tributary of Fairy Creek while the northern creek drains to Cabbage Creek which flows into Fairy Creek. Fairy Creek forms a small lagoon at the northern end of Stuart Park in North Wollongong which ultimately drains to the Pacific Ocean during lagoon openings.
Acid sulphate soil / rock risk (Department of Land and Water Conservation, 1998; SLEP, 2014; Bridgement, 2017)	Acid sulphate soil (ASS) risk mapping shows that the site is not underlain by areas of acid sulphate soil risk with the closest area of potential ASS risk located approximately 200 m east of the site in the vicinity of the University Ave, Memorial Drive interchange. Bridgement (2017) identifies the Illawarra Coal Measures as high risk for acid sulphate rock (ASR) due to being a formation known to contain ASR.
Groundwater (WaterNSW, 2019)	A search of the WaterNSW publically registered bore database identified no groundwater bores within 500m of the site boundary.

Item	Information
Site soil landscapes (NSW OEH, 2013)	The site is mapped as lying over two soil landscape types with the majority of the site dominated by the Disturbed Terrain Landscape. Elevated areas in the north-east, north-west and south are noted as being underlain by the Gwynneville landscape. These are described below: **Disturbed Terrain:** The topography varies from level plains to undulating terrain and has been disturbed by human activity to a depth of at least 100 cm. The original soil has been removed, greatly disturbed or buried. Most of these areas have been levelled to slopes of <5%. Land filling includes soil, rock, building and waste material. The original vegetation has been completely cleared. Limitations are dependent on nature of fill material resulting in a Mass movement hazard (subsidence), soil impermeability leading to poor drainage, low fertility and toxic material. **Gwynneville:** The topography of the landscape is characterised by the footslopes of the Illawarra Escarpment and isolated rises of the Wollongong Plain. Local relief is 10 – 70 m with slopes 3 - 25%. The landscape has broad to moderately (250 – 850 m) rounded ridges. gently to steeply inclined slopes, structural benches and occasional rock outcrops. Vegetation is extensively cleared tall open forest and open forest. Soils are shallow (50 – 100 cm) Brown Podzolic Soils and Xanthozems on upper slopes, Lithosols on simple slopes and shallow (<50cm) Brown Earths on midslopes and lower slopes. Development limitations within the landscape can include, extreme erosion hazard, steep slopes, mass movement hazard, local flooding. Reactive subsoils and impermeable, low wet bearing strength clay subsoil  Figure 2-2: Site soil landscapes
Site surface geology (GS NSW, 2018)	The site is mapped as predominately underlain by Quaternary sediments with elevated areas in the west of the site underlain by the Pheasants Nest Formation of the Illawarra Coal Measures. These are described below: **Quaternary sediments (Qal)** - quartz and lithic "fluvial" sand, silt, and clay. **Quaternary sediments (Qt)** - talus. Unsorted landslide material. **Pheasants Nest Formation (Plp)** - interbedded lithic sandstone, coal, carbonaceous claystone, siltstone, and claystone  Figure 2-3: Site surface geology

3 Site walkover and observations

A site walkover was conducted on 24 January 2022 by two Environmental Scientists from Cardno. Comments regarding items of potential concern / interest are summarised in **Table 3-1** with site features identified on **Figure 2, Appendix A**, photographs collected during the site walkover, and a full register of site features is shown in **Appendix B**

Table 3-1 Observations summary

Item	Observations
Site surface coverings	Location dependent, including grass, exposed soil and detritus outside hardstand areas. Hardstand areas include asphalt and concrete road surfaces and drainage structures.
Site cut and fill	Cut and fill features were noted across the site to establish levels for roads and structures. **Cut:** Evidence of cutting activities was limited to the cutting for Mount Ousley Road to pass through the hill at the north of the site and the northern side of the safety ramp (MOIW-093). Potential for cut exists in the southbound side of the motorway in the vicinity of the Mount Ousley Road exit, however site coverings and structures made it difficult to determine if this area is cut or simply on-grade. **Fill:** Evidence of fill was identified throughout the site in both the road corridor and neighbouring properties. During the walkover, fill materials were noted beneath the motorway in the vicinity of Mount Ousley Road and Falder Place. Based on relationships with adjacent land, it is inferred that fill materials extend under the entire motorway in the vicinity of creek culverts and adjacent to Wollongong TAFE. Thickness of fill in these areas varied but was estimated to be up to 1 to 1.5 m in parts. Evidence of filling was also noted at the University Avenue off-ramp / overpass, with apparent fill extending from the motorway off-ramp to Foleys Lane. Filling in this area is likely variable with a clear layer of gravel material up to 1 m thick visible under University Ave. The composition of the total embankment was unclear from observations and the extent of other forms of fill could not be determined. Finally, filling was also observed extensively throughout UoW with all areas on the southern side of the creek line in this area observed to be on up to 2 m of variable fill. This material also extended through the creek line and beneath the carpark towards Falder Place. On exposed fill faces within the creek line anthropogenic materials were observed (i.e. MOIW-035), including concrete and metal fragments.
Buildings and structures	The majority of the building and structures are associated with the site use as a motorway and include roads, signage, drainage and noise barriers. Five freestanding residential properties, 69, 71, 73, 75 and 77 Mount Ousley Road were located within the residential area and with the exception of 75 Mount Ousley Road, appeared to be of brick veneer construction. In addition to the above properties further residences located at 15 - 17 Falder Place were also within the study area; all structures were of brick veneer construction. Within UoW the study area contained: ▪ Building 31 - which contained offices for the Facilities Maintenance Division and was of modern brick construction with corrugated steel roofing; ▪ Building 31B and associated sheds - which contained mail sorting as well as materials, chemicals (including fuel and pesticides) and equipment associated with the maintenance of the UoW grounds. The buildings were of brick and steel construction with corrugated steel roofing. (MOIW-016 and MOIW-018); and ▪ Groundskeepers sheds and compound – which contained timber clad and corrugated steel structures and water tanks (MOIW-075). In addition to the above large structures the Study Area included or intersected with the P5 – Northern carpark and a portion of a tennis court associated with the Sports Hub. Within TAFE Wollongong the study area contained only a carpark and associated roads.
Potential hazardous building materials	Telstra pits located at the southern end of the site between University Avenue and Irvine Street were identified as potentially being constructed from asbestos fibre cement sheeting (MOIW-037). No other structures within accessible areas of the Study Area were identified as containing potential hazardous building materials

Item	Observations
Manufacturing, industrial or chemical processes and infrastructure	UoW Building 31B contained a range of chemical and equipment storage associated with the maintenance of the UoW facilities. Storage included flammable liquid storage, above-ground fuel storage tanks, pesticides and general chemicals (MOIW-017 and MOIW-019). Further storage of maintenance equipment and chemicals were noted in the groundskeepers' compound (MOIW-075) also though volumes were substantially lower. In structures adjacent to the study area in the TAFE Wollongong it is also anticipated that construction and manufacturing activities are undertaken for the purpose of trades education.
Fuel storage tanks (UST/AST)	Two ASTs associated with the storage of fuel were identified in the UoW Building 31B compound. Tanks were located in concrete lined bunds of at least 2.5 times the tank volume (MOIW-017).
Dangerous goods	Pesticide and chemical storage were noted within the maintenance equipment shed in the UoW Building 31B compound (MOIW-019). In addition to this oxy-acetylene storage was noted on buildings adjacent to the study area at TAFE Wollongong (MOIW-136).
Solid waste deposition	Areas within the south-east corner of the groundskeeper compound and also land adjacent south east was noted as containing stockpiles and stockpile remnants (i.e. scattered gravels and mulches) associated with landscaping construction and maintenance within UoW. (MOIW-004) Remaining solid waste management within the Study Area appeared to be primarily managed through the local municipal solid waste (MSW) system or equivalent. While litter was noted throughout the Study Area limited evidence of regular or recent fly-tipping was noted, these areas are noted on **Figure 3, Appendix A**.
Liquid waste disposal features	Waste oil and a waste oil separator were noted within the maintenance shed in the UoW Building 31B compound (MOIW-019). No other liquid waste features were noted within the Study Area at the time of the walkover.
Evidence of previous site contamination investigations	Two groundwater wells were identified in lands between Dumfries Ave and Mount Ousley Road however it is understood that these were associated with previous geotechnical assessments (MOIW-099 and MOIW-123). See **Section 4.1.3** and **Figure 4, Appendix A** for a summary of the previous investigations and sample locations where these locations can be identified.
Evidence of land contamination (staining or odours)	No staining or odours were noted in any locations during the walkover.
Evidence of groundwater contamination	No evidence of groundwater contamination was identified during the walkover.
Groundwater use	No evidence of groundwater use was identified during the walkover.
Vegetation	Vegetation across the site included a mixture of remnant and regrown natural forest and grassed areas / sports fields.
Site fencing and land enclosure	Significant areas of the site, including UoW, TAFE Wollongong and residential properties were enclosed or provided limited access to the public in vehicles or on foot. Areas associated with the motorway infrastructure were not enclosed though access was limited due to vegetation and landforms.

3.2 Areas not accessed

Due to access limitations and site operations (e.g. the active major highway, occupied residences and operating commercial premises) the areas detailed in **Table 3-2** were not visually assessed during the walkover and should be considered in relation to the further data gaps detailed in **Section 5.3**.

Table 3-2 Inaccessible areas during site walkover

Area	Justification / Notes
Structure interiors	No structure interiors were accessed as part of the walkover assessment.
Surfaces beneath hardstands and vegetation	Soils beneath hardstand surfaces or areas covered in vegetation were unable to be observed and assessed.
Hazardous areas	Areas within close proximity (barrier to barrier or 6 m from the verge in unbarricaded areas) of existing roads were unable to be observed due to the potential hazards associated with active roadways.

Area	Justification / Notes
Densely vegetated areas	Much of the site was covered with dense vegetation and a detailed inspection of these areas was not practicable due to limited / obstructed accessibility, and / or dense ground cover limiting visibility.
Residential properties	Residential properties were not accessed and only observed from adjacent public or accessible lands. It is Cardno's understanding that no residences are to be acquired or demolished as part of the proposal.

4 Site history assessment

A desktop site history review of the following was undertaken:

- Relevant other reports;
- Contamination registers and records;
- Historical business directories;
- Historic aerial photographs; and
- Utilities and service plans.

4.1 Relevant reports

The following reports with information on the contamination status of the site were supplied and reviewed as part of this PSI.

- Roads and Maritime Services (RMS) (2017) *M1 Princes Motorway, Mount Ousley Interchange, Review of environmental factors*
- Jacobs (2021) *Currency review of contamination information* (identified as an appendix to Jacobs (2021) *Mount Ousley Interchange: Design, Economic Analysis and REF Gap Analysis / Review*. Ref IA26700-RP-GN-0001
- Jacobs (2019) *MR6006 Southern Freeway Interchange with MR95, Mount Ousley Road, Geotechnical Factual Report*. Ref: IA128701-RP-GI-0014|03
- Jacobs (2019) *MR6006 Southern Freeway Interchange with MR95, Mount Ousley Road, Geotechnical Interpretive Report*. Ref: IA128701-RP-GI-0015|02

4.1.1 RMS (2017) Review of environmental factors

The Review of Environmental Factors (REF) report included a review of NSW EPA records (Contaminated Land Public Record and the List of NSW contaminated sites notified to EPA) which did not identify any records in the proposal area at the time of preparation. The REF did however identify the following potential contamination sources, migration pathways and receptors of concern based on the current and former land uses of the site.

- *Spills from vehicles (contaminants of concern are total recoverable hydrocarbons (TRH), monocyclic aromatic hydrocarbons (BTEX), heavy metals).*
- *Unsealed areas adjacent to the proposal. There is the potential for localised point sources of contamination to exist along the road corridor, in nature strips and road verges. This could be associated with leaks and particulate deposition from vehicles (TRH, polycyclic aromatic hydrocarbons (PAH), heavy metals and asbestos).*
- *Fly tipped waste (typically general waste, building materials, and household products).*
- *Fill material and asphalt associated with road construction (heavy metals, TRH, BTEX and PAH).*
- *Potential historical use of the proposal and surrounding areas as agricultural land. There is the potential for diffuse use of pesticides and herbicides (Organochlorine Pesticides (OCP), Organophosphorus Pesticides (OPP), TRH, heavy metals and herbicides), localised chemical storage (heavy metals, TRH, volatile organic compounds (VOC)) and waste disposal (heavy metals, TRH, BTEX, OCP, OPP, VOC and asbestos) associated with potential/unconfirmed historical use as agricultural land.*

Potential contamination migration pathways

Pathways by which the contamination sources discussed above could migrate towards potential receptors include:

- *Direct human contact through dermal contact, ingestion and/or inhalation*
- *Vertical/ lateral migration via groundwater*
- *Vertical/lateral migration via vapour.*

Potential receptors of concern

Potential receptors of contaminants of concern within the proposal could include:

- *Personnel working at the site (during construction works)*
- *General public entering the site including future site users (during and post construction works)*
- *Flora and fauna habitats present surrounding the site (including local sensitive environments)*
- *Aquatic ecosystems within nearby local waterways*
- *Groundwater dependent ecosystems*
- *Nearby properties and residents*
- *Down gradient beneficial users of groundwater.*

4.1.2 Jacobs (2021) Currency review of contamination information

Jacobs undertook a currency review of the findings of the REF with regards to contamination including an updated review of NSW EPA records, a review of geotechnical information supplied by RMS and consideration of any legislation changes in the time since the REF preparation.

With the exception of the identification of slag and furnace slag used as subgrade material in the geotechnical reports no new actual or potential contamination sources were identified.

The following conclusions were made:

- *In context of current legislation and NSW EPA endorsed guidelines, the contamination information detailed in the REF* (RMS, 2017) *still remains current*
- *No sites within the suburb of Mt Ousley were either regulated, formerly regulated or had been notified at the time of preparing this memo. This is consistent with the information detailed in the REF* (RMS, 2017)
- *No additional reports or other information have been provided which would change the findings of the REF* (RMS, 2017)
- *The changes to the concept design are unlikely to represent additional potential contamination sources and contaminants of concern.*

In addition to the above conclusions the following recommendations were made:

- Implement safeguards and management measures specific to contamination as per the REF (RMS, 2017);
- If further information is required on the contamination status of the site (i.e. to de-risk the project with regards to contamination) then further investigations, including site inspections and / or intrusive investigations should be undertaken.

4.1.3 Jacob (2019) Geotechnical factual and interpretive reports

The stated purpose of these reports was to present the results and interpretive findings of a geotechnical assessment conducted by Jacobs on behalf of Roads and Maritime Services (RMS) for the Mount Ousley Interchange proposal. As these reports were based on different treatments of the same data set they have been summarised here together.

The following was noted within the Geotechnical Interpretive Report (GIR) with regards to fill materials:

> *Fill was encountered at various locations throughout the study area. It is typically associated with the existing road formations (pavement and embankment), existing carparking areas and areas when urbanised development has occurred including Wollongong TAFE and University of Wollongong campus.*

Figure 4, Appendix A and the associated table summarises all fill identified across the site including extent, type and depths. Broadly site fill could be categorised into three types:

- Blast furnace slag: found primarily has heavily and loosely bound material as road base beneath the motorway;
- Soils with anthropogenics: found in parts across the site and not appearing to be indicative of bulk filling with anthropogenic materials; and

> Soils without anthropogenics: found across most of the site and associated with road construction and establishment of site levels.

A limited amount of acid sulphate soil (ASS) screening and assessment was undertaken by Jacobs during their assessment with field screening undertaken across the alignment followed by three samples (BH282_1-1.45, BH285_2-2.45 and TP227_2.6-2.8) assessed by Suspension Peroxide Oxidation Combined Acidity and Sulphate (SPOCAS) methodology and 3 samples (BH113_2.8-3, TP10_1.7-1.9 and TP13_1.3-1.5) assessed by Chromium Reducible Sulphur (CrS) method. All samples assessed by SPOCAS and CrS identified Net Acidity (%S) in excess of the action criteria for disturbance of >1,000t of material derived from the *Acid Sulfate Soil Assessment Guidelines* (ASSMAC, 1998). Preparation of an Acid Sulphate Soil Management Plan (ASSMP) was recommended.

Table 4-1 has been extracted from the GIR (Jacobs, 2019b) and summarises groundwater observations and measurements made as part of the geotechnical investigation. Generally, it was concluded that groundwater would not be struck as part of the proposed works however, in lower lying alluvial areas along creek lines it is expected that groundwater would be shallower than other areas of the site, potentially encountered at 2 to 5 m below current ground level.

Table 4-1 Extract from (Jacobs, 2019b), summary of groundwater observations and measurements

Location	Ground Level (m AHD)	Groundwater Depth (m BGS)	Groundwater Level (m AHD)	Water Level date/observation
BH101	38.87	8.9 to 9.5	29.37 to 29.97	Data logger (May 2017 to Feb 2019)
BH102	52.12	< 14.5	> 37.62	Data logger (May 2017 to Feb 2019) / Dry
BH103	40.37	2.5	37.87	Strike during auger drilling
BH106	32.84	9.2 to 13.2	19.64 to 23.64	Data logger (May 2017 to Feb 2019)
BH111	27.09	9.8 to 11.5	15.59 to 17.29	Data logger (May 2017 to Feb 2019)
BH212	37.91	11.4 to 11.5	26.41 to 26.51	Data logger (Feb 2019)
BH217	34.44	10.6	23.84	Strike during auger drilling
BH231	36.51	17.2 to 17.4	19.11 to 19.31	Data logger (Feb 2019)
BH255	27.78	7	20.78	Strike during auger drilling
BH260	26.19	12	14.19	Strike during auger drilling
BH264	22.61	9.2	13.41	Strike during auger drilling
BH265	22.23	8	14.28	Strike during auger drilling
BH268	23.27	7.5	15.77	Strike during auger drilling
BH269	22.48	4.9	17.58	Data logger (Feb 2019)
BH274	26.82	7.8	19.02	Strike during auger drilling
BH275	17.52	6.1	11.42	Strike during auger drilling
BH276	18.57	7.6	10.97	Strike during auger drilling
BH284	14.17	2.25	11.92	Measured as standing level after 4 days
BH289	37.78	11.5	26.28	Strike during auger drilling
BH290	16.14	4.3	11.84	Strike during auger drilling
BH292	16.01	7.6	8.41	Strike during auger drilling
BH293	14.15	6	8.15	Strike during auger drilling
BH294	25.17	6.8	18.37	Strike during auger drilling
BH295	23.01	7.6	15.41	Strike during auger drilling
ETP03	29.67	0.9	28.77	Strike during excavation

4.2 Registers and records

A search of the following databases was undertaken on behalf of Cardno by Lotsearch (Report ID LS028050, **Appendix C**) to identify properties within 1,000 metres of the site that may present a potential contaminant risk:

- List of NSW contaminated sites notified to NSW EPA;
- NSW EPA Contaminated land records of notice;
- NSW EPA location of former gasworks sites;
- NSW EPA per and poly fluoro-alkyl substance (PFAS) Investigation program;
- NSW EPA other sites with contamination issues;
- NSW EPA Licensed activities under the PoEO Act;
- NSW EPA Delicensed PoEO activities still regulated by the EPA;
- NSW EPA Former PoEO licensed activities now revoked or surrendered;
- Defence PFAS Investigation & Management Program;
- Airservices Australia National PFAS Management Program;
- Geoscience Australia National Waste Management Facilities Database; and
- Geoscience Australia National Liquid Fuel Facilities.

Records identified within 1000 metres of the site are summarised in **Sections 4.2.1 to 4.2.3**, the full results of searches including records outside the 1,000 m buffer and results for databases with no records identified are included in **Appendix C**.

4.2.1 NSW contaminated sites notified to EPA and Contaminated land records of notice

Results of the NSW contaminated sites notified to the EPA and Contaminated land records of notice identified four records. All identified sites are considered to be down-gradient, cross-gradient or otherwise not hydraulically linked to the site.

Table 4-2 NSW Contaminated Sites notified to the EPA

Location	Address	Activity	Management Class	Distance (m)	Direction
Caltex Fuel Depot and adjoining land	46 Montague Street, Fairy Meadow	Service Station	Contamination formerly regulated under the CLM Act	653	East
Former Mobil Depot	122-126 Montague Street, North Wollongong	Other Petroleum	Regulation under CLM Act not required	669	South East
Caltex Service Station	9 Flinders Street, Wollongong	Service Station	Regulation under CLM Act not required	773	South East
Deynal (Seeman)	51-59 Princes Highway, Fairy Meadow	Service Station	Regulation under CLM Act not required	976	North East

4.2.2 NSW EPA location of former gasworks sites

A search of the NSW EPA former gasworks register identified a single record within the buffer summarised below. The identified site is not considered to be hydraulically linked to the site and is sufficient distance away to minimise other forms of impact.

Table 4-3 Location of former gasworks

Location	Council	Distance (m)	Direction
Flinders Street, Wollongong	Wollongong City Council	846	South East

4.2.3 National liquid fuel facilities

A search of the Geoscience Australia National Liquid Fuel Facilities register identified three records. All identified sites are considered to be down-gradient, cross-gradient or otherwise not hydraulically linked to the site.

Table 4-4 National liquid fuel facilities

Owner	Name	Address	Suburb	Class	Operational Status	Distance (m)	Direction
BP	BP Fairy Meadow	224 Princes Highway	Fairy Meadow	Petrol Station	Operational	432	East
Caltex	Caltex Gwynneville	36 Foley Street	Gwynneville	Petrol Station	Operational	519	South
Caltex	Caltex Wollongong North	9 Flinders Street	Wollongong	Petrol Station	Operational	773	South East

4.2.4 Activities regulated by the NSW EPA

Activities listed under the PoEO Act identified within the 1,000 metre buffer of the site are described in **Table 4-5**.

Table 4-5 NSW EPA PoEO License Database search results

Organisation	Location / Address	Licence Status	Activity	Distance (m)	Direction
Sydney Trains	Illawarra Railway Corridor	Active	Railway systems activities	490 m	South East
South Coast Equipment Pty Ltd	SCE Premix – Wollongong Plant, 101 Montague St, Wollongong North	Delicenced (still regulated by EPA)	Concrete works	872	East
Luhrmann Environment Management Pty Ltd	Waterways throughout NSW	Surrendered	Other Activities / Non-Scheduled Activity - Application of Herbicides	0	On site
Robert Orchard	Waterways throughout NSW	Surrendered	Other Activities / Non-Scheduled Activity - Application of Herbicides	0	On site
Sydney Weed & Pest Management Pty Ltd	Waterways throughout NSW	Surrendered	Other Activities / Non-Scheduled Activity - Application of Herbicides	0	On site
Hanson Construction Materials Pty Ltd	59 Montague Street, Fairy Meadow, NSW 2519	Surrendered	Concrete works	786	East

4.3 Historical business directories

Lotsearch report LS028050 in **Appendix C** contain a search of UBD Business to Business directories from 1991, 1982, 1970, 1961 and 1950. A search buffer of 150 metres of the site was used for general business activities whilst a buffer of 500 metres was used for dry cleaners and motor garages / service stations.

Records of interest (i.e. high risk activities) are summarised in **Table 4-6** and **Table 4-7**. A review of the records in the context of proximity to the site and intervening topography and hydrology limit potential pathways of contaminants from most of the identified businesses, in particular the identified service stations, motor garages / mechanics and dry cleaners. Full records are included in **Appendix C**.

Table 4-6 Historical business records – general

Business activity	Premises / Business Name	Year	Location confidence	Distance and Direction
Joinery manufacturers &/or merchants.	Jm Joinery., 5 Madoline St Gwynneville	1991	Premise Match	Onsite South
Painters, paperhangers & decorators	Perry, F. H., 55 Mt, Ousley Rd., Fairy Meadow	1961	Premise Match	Onsite East
Colliery supplies Sawmilling machinery mfrs. &/or merchants	Ray, Ronald I., 17 Burling Ave., Fairy Meadow	1970, 1961	Premise Match	37m North East
Painters, paperhangers & decorators	Cornford, R., 19 Burling Ave., Mt. Ousley	1970, 1961	Premise Match	43m North East
Haulage contractors Wood merchants-coal &/or coke	Vickery, E. G., 37 Mt. Ousley Rd., Fairy Meadow	1970, 1961	Premise Match	57m East
Motor oil &/or spirit depots Oil merchants - general	Total Aust. Ltd., Robson Rd., Wollongong West 2500 Valvoline (Aust.) Pty. Ltd., Depot, Robson Rd., Wollongong West 2500 Valvoline Aust., Robson Rd., West Wollongong	1982 1970	Road Match	West / South West
Motor oil & spirit depots	Esso Australia Ltd., Porter St., North Wollongong 2500 Esso Standard Oil (Aust.) Ltd., Porter St., Wollongong North Atlantic Oil & Petrol Depot, Porter St., Wollongong Atlantic Union Oil Co. Ltd., Porter St., North Wollongong Jones Gus Pty. Ltd. (Agents Atlantic)., Porter St., North Wollongong	1982 1970 1961 1950	Road Match	East

Table 4-7 Historical business records – Dry cleaners, motor garages and service stations

Business activity	Premises	Year	Location confidence	Distance and Direction
Motor garages &/or engineers &/or service stations	Dons Motor Repairs. 141A Princes Highway., Fairy Meadow 2519	1982	Premise Match	308 m East
Motor garages &/or engineers	Golden Fleece Service Station, 137 Princes Highway., Mt. Ousley	1970	Premise Match	308 m East
Motor garages &/or engineers	Golden Fleece Service Station, 135 Princes Highway., Fairy Meadow	1961	Premise Match	308 m East
Dry cleaners, pressers & dyers	Greater Wollongong Drive-In Dry Cleaners, 141a Princes Highway., Fairy Meadow	1961	Premise Match	308 m East
Motor garages &/or engineers &/or service stations	A.B.C. Automatics. 119 Princes Hay, Fairy Meadow 2519 G.P. Automotive Services, 119 Princes Highway, Fairy Meadow 2519	1982	Premise Match	325 m East

Business activity	Premises	Year	Location confidence	Distance and Direction
Dry cleaners & pressers.	Ryans Dry Cleaning & Laundry Pty Ltd., 22 Foleys Rd Gwynneville Ryans Dry Cleaning & Laundry (W'gong) Pty. Ltd., 22 Foleys Rd., Gwynneville 2500	1991 1982	Premise Match	388 m South
Motor service stations-petrol, oils, etc. Motor garages &/or engineers	Beaurepaire Tyre Service (Wollongong) Pty. Ltd., 115-117 Princes Highway., Fairy Meadow Brailey, E. J., 115 Princes Highway., Fairy Meadow	1970 1961	Premise Match	393 m East
Motor garages &/or engineers	Simpson, J. W., 15 Cottage Green Rd., Mount Ousley, 2519	1970	Premise Match	395 m North
Motor garages &/or engineers	Gwynneville Auto Centre, Foleys Rd., Gwynneville	1970	Road Match	South

4.4 Historical aerial imagery

Historical aerial imagery from the years 1941, 1948-1951, 1951, 1961, 1970, 1974, 1984, 1994, 1998, 2008, 2016 and 2021 were reviewed to identify land use activities of concern. Imagery summaries and a general list of features of potential contaminant interest are included in **Table 4-8**. Images are included in Lotsearch Report ID LS028050, **Appendix C.**

Table 4-8 Historical aerial imagery summary

Year	Site Observations	Surrounding Area Observations
1941 (B&W)	The Site appears to consist of mostly grazing area with dense vegetation cover dispersed throughout the north and following the creek line. Mount Ousley Rd is visible along its former alignment in the north of the study area. There appeared to be a train line cutting through the southern end of the Site in a south-east direction. A road in the south also cuts across the study area and would connect todays Northfields Ave and TAFE NSW.	The surrounding area appeared to consist of predominantly grazing area. Some early residential dwellings were found to the north-east with Gowan Brae Ave, Helen St and Gaynor Ave in their current day position. Patches of dense vegetation were found in the north. There appeared to be a rectangular shape of roads in the west next to the train line, adjacent south of the current location of Building 31b. Some residential structures and a structure associated with the inferred rail line were located east of the Study Area. There was a creek line present south-east of the site.
1948-1951 (B&W)	Mount Ousley Rd was now wider and appeared to have been sealed. Evidence of earthworks, potentially likely cut and fill was evident along the alignment of Mount Ousley Rd. It appeared that a house was being built on Mount Ousley Rd near the other residential dwellings in the north-east.	The residential dwellings north-east of the site continued to be developed and extended further north with Burling Ave and Strone Ave visible in their current position. There were now buildings, possible warehouse-style structures, where TAFE Wollongong is currently located. Low-density residential buildings were present in the southern corner near the creek line with a new unpaved road. The rectangular shape in the west now appeared to be an area for grazing or cropping.
1951 (B&W)	The Site appeared generally unchanged. Vegetation in the north-east is sparser.	The beginnings of a residential area are shown south of Northfields Ave in its current position. The residential dwellings in the south corner and north-east have been built up further. There appeared to be foundations of a building present in the east, below the creek line, as part of TAFE Wollongong, suggesting expansion of the facilities in this area.

Year	Site Observations	Surrounding Area Observations
1961 (B&W)	There looks to be fill outlining Mount Ousley Rd, particularly in the west. There were a few new residential dwellings spread throughout the west. Vegetation mostly remained the same, following the creek line. The safety ramp off Mount Ousley Rd was now visible and Dumfries Ave had been built. Possible stockpiles were visible in cleared land between the safety ramp and Mount Ousley Road Early construction works for the Princes Motorway appeared to have commenced through the site with land clearing and earthworks visible. Culvert construction was visible in the northern creek line that crossed path with the outlined motorway. The creek line in the south had become more prominent with culvert construction also visible in this area. Earthworks for the waterway in the south-eastern corner of the site were also clear The train line appeared to have been abandoned and had become an unpaved road.	Low-density residential dwellings were present along Dumfries Ave in the north. As such, there was less vegetative cover and more cleared land in that area. Further residential dwellings in the north-east had been built. Construction of structures around TAFE Wollongong were complete. A road cut through the south-eastern corner where Memorial Dr currently existed. The residential dwellings south of Northfields Ave had been built-up. Buildings were now visible where the train line used to be to the west of the Site, likely the start of the development of UoW.
1970 (B&W)	The Princes Motorway had finished construction and bridges had been built where University Ave is currently positioned at the southern edge of the Site and also just north of University Ave across the southern creek line. The possible stockpiles between the Safety Ramp and Mount Ousley Road were no longer visible There appeared to be filing along University Avenue in the south-eastern corner. In the north-west, roads had been built connecting Dumfries Ave to Sunninghill Cct. Vegetation cover had increased in the north. A carpark had been built next to TAFE Wollongong in the east.	There was a large build-up of the residential area in the north and north-east with few areas of bare land still visible. There looked to be further construction of UoW with new roads, a carpark and buildings in the west and north-west. Sporting fields were now visible in the north-east of UoW. Further development of residential areas south of Northfield Ave and in the south-east corner adjacent to Memorial Dr. The Botanic Gardens appeared to have also been constructed. The University Ave bridge had been built over Memorial Dr but the land to the north-east of this bridge remains undeveloped. There was increased development of TAFE Wollongong with new buildings visible and additional carparks visible.
1974 (B&W)	The Site was generally unchanged with only sparser vegetation in the north. The southern creek line appeared to have been realigned and now flows along University Ave.	There was a slight increase in residential dwellings in the west and additional development of UoW. Sporting fields and associated structures were also visible in the east, associated with TAFE Wollongong.
1984 (Colour)	The image was now in colour. Carparks for TAFE Wollongong along the eastern edge of the Site now extended the full current extent. Vegetation south and west of the motorway continued to grow and expand through planting. Exit off the motorway to Farrell Ave was no longer possible.	There were more buildings at UoW. A carpark north of Northfields Ave had been paved. TAFE Wollongong appeared to have additional parking and infrastructure constructed in the east.
1994 (Colour)	There was denser vegetation in the north and along the motorway. It appeared that through natural growth and plantings, vegetation between Dumfries Ave and the motorway were now expanding. The footbridge was now built across the motorway north of University Ave. Two roundabouts had been built at Northfield Ave and University Ave. The groundskeeper compound was now visible in the north-east of UoW and tennis courts in their current location. The current location of Buildings 31 and 31b were occupied by a possible landscaping stockpile area and tennis courts.	There was a carpark built in the north-western corner of UoW and further buildings had been developed, including the sports centre, pool, and sporting field. A roundabout had been built at the intersection of Foleys Ln and University Ave. At TAFE Wollongong, the southern carpark had been moved further south and replaced with other infrastructure.

Year	Site Observations	Surrounding Area Observations
1998 (Colour)	The previous grassland between Dumfries Ave and the motorway in the north was now filled with dense vegetation. There appeaeds to be construction compound adjacent in the north-eastern corner of the site between the motorway and residential dwellings, however, poor image quality made it difficult to confirm. The vegetation across the site was generally denser.	The UoW carpark in the west had expanded. The surrounding area was otherwise generally unchanged.
2008 (Colour)	Eastern areas of P5 south had now been constructed, replacing the previously existing buildings. The potential construction compound in the north-east was now bare ground and an open grass area. Ground surfaces appeared to be covered in gravel. A roundabout was constructed at the intersection of Mount Ousley Rd and Gaynor Ave.	TAFE Wollongong had undergone some minor infrastructure upgrades. The surrounding area was otherwise generally unchanged. Mount Ousley Substation was now present.
2016 (Colour)	P5 carpark had been expanded into the central area south of the northern creek. The land north of the carpark was clearer and it appeared that two low density residential buildings had been demolished however townhouses were now visible. Large water tanks were visible in the groundkeeper compound. Buildings 31 and 31b were now present, including ancillary structures. A building next to the footbridge north of University Ave had been demolished.	There was an expansion of UoW infrastructure in the north-west along with additional buildings. A roundabout had been built on University Ave as it merges with Memorial Dr.
2021 (Colour)	The Site was in its current form. P5-North carpark has been built. The site was otherwise generally unchanged	The surrounding area was in its current form and was generally unchanged from previous images.

4.5 Motorway incident records

Historical crash data was supplied for the study area for the 5-year period 1 January 2015 to 07 May 2021 (see **Appendix D**). The data showed that in this time period, 1356 motorway incidents, have occurred within the study area and a 100 m buffer of the study area. The majority of incidents were associated with breakdowns and debris on the road however nine fires and ten fluid spills were noted. These incidents are shown on **Figure 5, Appendix A**.

At the time of the site walkover, no obvious staining indicative of vehicle fluid spills, was noted within the safely accessible road corridor. The extent of potential contamination associated with vehicle accidents is likely to be limited in extent and volume (up to 200 litres of fuel is typical for a specially fitted long-range light vehicle). However, given the limited extent of records it is likely that the total number of incidents including spills and fires is higher than those identified.

4.6 Utilities plans

A review of utilities within the corridor was undertaken by Cardno from plans as provided by service managers (as at 7 February 2022) through a dial before you dig (DBYD). Results are shown in **Table 4-9 and** mapped utilities are shown on **Figure 2, Appendix A**.

Table 4-9 Underground utilities summary

Utility owner	Asset Description
AARNet Pty Ltd	Two fibre optic assets are mapped as crossing the motorway at Northfields Ave in the south and the northern end of TAFE Wollongong
Endeavour Energy	Power assets are located beneath the site include the following: ▪ Within the structure of University Avenue bridge over the motorway; ▪ As an underbore adjacent east of the Northfields Ave;

Utility owner	Asset Description
	▪ As concrete lined conduits along the eastern side of the M1 Motorway from the Northfields Ave conduit to the Mount Ousley Zone substation; ▪ As an underbore between Helen St and UoW; ▪ Along southern side of Mt Ousley Road to supply lighting before crossing and connecting with overhead supply in McMahons St; ▪ As an underbore running south from Foothills Road, this branches to supply lighting at the M1 Motorway / Mount Ousley Road intersection. The north south running underbore is marked with an asbestos warning; and ▪ As a conduit along the edge of the motorway between Northwood St and Dumfries Ave.
Jemena Gas	A single polyethylene underbore is mapped between the end of Falder Pl and Dumfries Ave. An additional main is also mapped as providing service the Mt Ousley Road residences in the north east of site.
NBN Co	The following communications assets are shown under the site: ▪ A single 100mm asbestos conduit is mapped as crossing the motorway between Falder Pl and Dumfries Ave in the north; ▪ A single 80 mm PVC conduit is mapped along the western boundary of TAFE Wollongong; and ▪ A single 100 mm PVC conduit is mapped as crossing at the University Ave motorway bridge. This conduit ties into 100 mm asbestos conduit on either side of the bridge.
Optus / Uecomm	Optus have to connects mapped as crossing the motorway, a buried fibre conduit at Northfields Ave and a second cable within another operator's utility conduit at the University Ave bridge and following University Ave.
Sydney Water	Sydney Water assets across the site include: ▪ A 250 mm and 500 mm cast iron cement lined water mains crossing the motorway between Binda St and Dumfries Ave; ▪ A 100 mm cast iron cement lined water main supplying residences on Mount Ousley Road; ▪ A 150 mm vitrified clay sewer main supplying residences on Mount Ousley Road; ▪ A 300 mm vitrified clay, partially concrete encased, sewer main crossing the motorway at the north end of TAFE Wollongong; ▪ A 300 mm vitrified clay sewer main and 100 mm cast iron cement lined water main crossing the motorway at Northfields Ave; and ▪ A 300 mm vitrified clay sewer main crossing the motorway at Madoline St, this is connected to the crossing at Northfields Ave via a 225 mm vitrified clay connection on the eastern side of the motorway.
Telstra	See NBN Co
TPG Telecom	TPG assets across the site include: ▪ A duct entering from Helen St and following the western boundary of TAFE Wollongong which continues and follows under University Ave to the east; and ▪ A branch off the above which crosses at Northfield Ave, potentially as part of the pedestrian bridge.

4.7 Per or poly-fluoroalkyl substances (PFAS)

A PFAS probability of occurrence desktop survey is provided in **Table 4-10** and has been undertaken on the basis of information provided in the PFAS National Environmental Management Plan (NEMP) (HEPA, 2020). PFAS are known to be present in aqueous film forming firefighting foams (AFFF) and alcohol-type concentrate. The historic use of AFFF is reported as being used by Fire & Rescue NSW between 1976 and 2007, while other agencies used AFFF during training exercises as late as 2010 (Fire & Rescue NSW, information sheet, firefighting foam and PFAS, reference D16/82523).

Table 4-10 PFAS screening survey

Preliminary screening question	Likelihood of occurrence [1, 2, 3]
Is the past or present site activity listed in the NEMP 2020 as being an activity with risk of fire. If so, list activity:	Medium – vehicle fires
Is the past or present off-site activity up-gradient or adjacent to a site listed in the NEMP as being an activity with risk of fire. If so list activity:	Low

Preliminary screening question	Likelihood of occurrence [1, 2, 3]
Did fire training involving the use of suppressants occur on site between 1970 and 2010?	Low
Did fire training occur up-gradient of or adjacent to the site between 1970 and 2010?	Low
Have 'fuel' fires ever occurred on site between 1970 and 2010? (i.e. ignition of fuel storage tanks - solvent, petrol diesel, kerosene, other)?	Medium – vehicle fires
Have PFAS been used in manufacturing or stored on site?	Low
Could PFAS have been imported to the site in fill materials from a site with activity listed in NEMP and subject to exposure to PFAS from 1970 to 2010?	Low
Could PFAS-contaminated groundwater or run-off have migrated beneath or on to the site?	Low
Is the site or adjacent sites listed in the NSW EPA PFAS Investigation program [4]?	Low
If the likelihood is medium or high in any of the above factors, does the site analytical suite need to be optimised to include preliminary sampling and testing for PFAS in soil and waters (incl. ASLP or TCLP)? Provide rationale.	Further assessment of PFAS potentially warranted in fill profiles and areas of historic fires and burns.

Notes:

1 Likelihood: Low – all necessary documentation has been reviewed and there is no recorded instance of potential PFAS use or exposure.

2 Likelihood: Medium – all necessary documentation has been reviewed and there is potential evidence of a recorded instance of potential PFAS use or exposure.

3 Likelihood: High – all necessary documentation has been reviewed and there is evidence of a recorded instance of potential PFAS use or exposure.

4 www.epa.nsw.gov.au/your-environment/contaminated-land/pfas-investigation-program

4.8 Suitability of site history records

The site history information collected during this investigation is considered of a suitable quality for the purposes of a preliminary site assessment.

5 Discussion

Table 5-1 summarises the contamination sources identified within the study area based on the desktop assessment and site walkover. Identified contamination sources are consistent with the current and recorded site history, while a small number of localised sources have been identified (i.e. Mount Ousley Substation, utilities). A broad risk of potential contamination exists across the site from activities associated with road construction (i.e. filling) and use (i.e. unrecorded spills and fires).

Table 5-1 Contamination sources summary

Contamination Source	Description	Contaminants of concern	On/off site
Buried utilities	Buried utilities have been identified to contain asbestos pipes and pits which may cause impact to surrounding soils if degraded or damaged. In addition to this, utilities may provide a preferential pathway for migration of fluid contaminants due to loose and reworked, soils and gravels.	Asbestos	On site
Historical construction compound	A potential historical construction compound was identified between the M1 Motorway and Mount Ousley Substation in the 1998 historical aerial imagery. The site walkover also identified asphalt and gravel on ground surfaces in this area.	Asbestos, total recoverable hydrocarbons (TRH), benzene, toluene, ethylbenzene, xylene (BTEX), polycyclic aromatic hydrocarbons (PAH), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, general waste, equipment maintenance spills	On site
Chemical and fuel storage – Building 31b	Above ground storage of fuels and chemicals was noted within the Building 31b compound at UoW. Storage appeared to be consistent with best practice, including concrete lined bunds of 2.5x volume for fuel ASTs. Further to this, these structures were identified as being constructed between 2008 and 2016 based on aerial imagery. While long term impact and widespread impact is unlikely these sources have a high potential of causing significant localised impact in the event of a spill.	TRH, BTEX, PAH, Pesticides, VOCs, SVOCs	On site
Mount Ousley Substation	Substation transformers contain significant quantities of oil which historically has contained polychlorinated biphenyls (PCB). In the event of a substantial and uncontrolled spill of these oils there is potential for impacting the site through surface run-off and sub-surface migration	TRH, PCB	On site and off site
Acid sulphate soil / rock	Potential for acid leakage in exposed ASS / ASR in exposed or dewatered soils.	Low pH (acidic) leachate, subsequent metal leachate	On site and off site
Asphalt pavement	There is potential for remnant asphalt pavement layer to contain coal tar. These materials may exist in disused portions of former highway or remain in-situ beneath the current highway at depth (following re-pavement).	PAH, phenol, coal tar	On site and off site

Contamination Source	Description	Contaminants of concern	On/off site
Fluid spills, vehicle fires and general motorway usage.	Impacting roadside verges and downgradient areas, contaminant impact from incidents and their management such as fluid spills and vehicle fires has potential to impact soils and surface waters. Further to this, general high-volume vehicle usage within the site has potential to cause surficial impact to soils and surface waters. Contaminants can include, historical lead-based fuel additives, historical asbestos containing brake pads, low level spills and leakage of vehicle fluids, general wear of tyres and spill / loss of loads.	Asbestos, TRH, BTEX, PAH, metals, PFAS, VOCs, SVOCs, micro-plastics and general waste	On site and off site
Fly-tipping, uncontrolled filling, stockpiling, dam construction, creek line filing, road construction and associated activities	Areas of filling and fly-tipping were observed throughout the alignment and within UoW and TAFE Wollongong lands. While filling through the study area may have been completed with appropriate approvals, no documentation has been provided for review as part of this report. Potentially contaminated fill materials may have also been imported to the study area during initial road construction and maintenance activities and could be located in fill, within embankments and at bridge approaches. Evidence of earthworks was noted in lands between Dumfries Ave and the M1 Motorway. Earthworks activities appeared to be associated with the construction of the safety ramp and carpark in this area of the site The extent to which this is cut, fil or cut to fill is not clear at this time. Due to the undocumented and/or uncontrolled nature of these activities the potential associated contaminant list is broad.	TRH, BTEX, PAH, VOCs, SVOCs, metals, phenol, organochlorine pesticides (OCP), organophosphate pesticides (OPP), PCB, asbestos.	On site and off site

5.2 Preliminary conceptual site model

A CSM provides an assessment of the fate and transport of COPC within the context of site-specific subsurface conditions with regard to their potential risk to human health and the environment. Risk to human health and the environment is identified through complete source – pathway – receptor (SPR) linkages. In order to identify SPR linkages the CSM considers site specific factors, including:

- Source(s) of contamination
- Identification of contaminants of concern associated with past (and present) source(s)
- Site specific information including soil type(s), inferred depth to groundwater, inferred permeability, inferred groundwater flow direction and surface water bodies and interactions
- Location of any identified sources relative to the proposed study area development
- Actual or potential receptors considering both current and future land use both for the study area, adjacent properties and any sensitive ecological receptors.

Based on the information collected as part of this PSCI, including study area history information and observations and the limited analytical data gathered, the preliminary CSM in **Table 5-2** shows potential SPR linkages and the likelihood of complete exposure pathway based on an understanding of the current and future land uses.

Identified receptors for the potential study area contamination includes:

- Current study area users and workers who may disturb potentially contaminated materials
- Future study area users and workers who may disturb potentially contaminated materials
- Ecological receptors that depend on soil and waters in potentially impacted areas.

Table 5-2 Preliminary conceptual site model

Contamination Source	Contaminants of potential concern	Impacted media	Pathway	Receptor	Likelihood of complete exposure pathway
Buried utilities	Asbestos Buried utilities may also act as conduits for other contaminants.	Backfill soils and soils adjacent to utilities	Inhalation of asbestos fibres due to damage and disturbance of asbestos containing materials. Direct contact with other contaminants along or within the conduit.	Current and future workers within the study area	Medium – Asbestos containing utilities have been identified within the site, appropriate management and controls will be needed to minimise risk of exposure to acceptable levels. It should also be assumed that other contaminants may be migrating along conduit pathways.
Historical construction compound	Asbestos, total recoverable hydrocarbons (TRH), benzene, toluene, ethylbenzene, xylene (BTEX), polycyclic aromatic hydrocarbons (PAH), volatile organic compounds (VOCs), semi-volatile compounds (SVOCs), metals, general and former construction waste	Surface soils through direct application	Direct contact Incidental ingestion Inhalation of volatile organic compound vapours and asbestos fibres	Current and future workers within the study area General public accessing the area for recreation purposes (i.e. exercise) Ecological receptors – soil dependent biota	Low – While evidence of former use of the area as a site compound exists no contaminant indicators were identified. Identified gravel and asphalt has potential to impact aesthetic suitability of soils.
Chemical and fuel storage – Building 31b	TRH, BTEX, PAH, Pesticides, VOCs, SVOCs	Soils through spills / direct application Surface waters through surface run-off in the event of storage / bund failure	Direct contact Incidental ingestion Inhalation of vapours	Current and future workers within the study area Ecological receptors – soil and surface water dependent biota	Low – While the potentially contaminating compounds are present no evidence of spillage or inappropriate handling was identified. Only complete if evidence of spills is identified.
Mount Ousley Substation	TRH, PCB	Soils through spills, and seepage	Direct contact Incidental ingestion	Current and future workers within the study area Ecological receptors – soil dependent biota	Low – No evidence of recent spills and based on recent construction there is limited potential for historical but attenuated impacts. Only complete if evidence of spills is identified

Contamination Source	Contaminants of potential concern	Impacted media	Pathway	Receptor	Likelihood of complete exposure pathway
Acid sulphate soil / rock	Low pH (acidic) leachate, subsequent metal leachate	Soils in the event of exposure and dewatering Surface and groundwater through acid and metal leachate seepage	Exposure of ASS resulting in acidic leachate generation. Direct contact with acidic leachate	Site structures due to acid generation Downgradient surface and groundwater users – ecological and human	Medium - Potentially complete in the event of uncontrolled disturbance and exposure of ASS / ASR.
Asphalt pavement	PAH, phenol, coal tar	Remnant layers of asphalt pavement that contain coal tar Soil interacting with contaminated pavement via leaching or direct contact	Direct contact including contact with root structures Mobilisation of contaminants via leaching	Current and future workers within the study area Ecological receptors – soil dependent biota, primarily vegetation Downgradient surface and groundwater users – ecological and human	Medium – Potentially complete in the event that impacted pavement remains in-situ and is disturbed in an uncontrolled manner during construction activities.
Fluid spills, vehicle fires and general motorway usage.	Asbestos, TRH, BTEX, PAH, metals, PFAS, VOCs, SVOCs, micro-plastics and general waste	Soils (predominately surface soils) through spills / direct application Surface waters through surface run-off	Direct contact Incidental ingestion Inhalation of volatile compound vapours Mobilisation of contaminants via leaching	Current and future workers within the study area Ecological receptors – soil and surface water dependent biota Downgradient surface and groundwater users – ecological and human	Low to Medium – Activities are known to have occurred across the site over an extended (approximately 60 year) time period. The impacts have potential to be locally very high (such as from spills and fires) as well as broad and low (such as asbestos from brake pads and low-level fluid leakage)
Fly-tipping, uncontrolled filling, stockpiling, dam construction, creek line filing, road construction and associated activities	TRH, BTEX, PAH, metals, phenol, organochlorine pesticides (OCP), organophosphate pesticides (OPP), PCB, asbestos, VOCs, SVOCs.	Soils through direct application Surface waters through surface run-off	Direct contact Incidental ingestion Inhalation of volatile compound vapours and asbestos fibres	Current and future workers within the study area General public accessing the area for recreation purposes (i.e. exercise) Ecological receptors – soil and surface water	Low to Medium - potentially complete in the event of any direct interaction with impacted media (i.e. excavations, use as growth medium). Fill is extensive across the site but a low likelihood is probable where an effective construction environmental management plan is in place.

5.3 Data gaps

The information, observations and data gathered during this investigation is considered to be of an acceptable quality and suitable for the purposes and objectives of the PSI. Despite this the following data gaps have been identified:

- Study area history details available from a land titles search, Section 10.7 (2 & 5) certificates, SafeWork NSW Schedule 11 dangerous goods on premises records and Wollongong City Council records have not been reviewed. Based on available information and the nature of the study area, these records are unlikely to contain information that will substantially change or have significant bearing on the outcomes of the assessment
- Not all areas of the study area were accessible, such as residential premises where consent to enter was not provided. These areas are constrained and while current activities within these areas have not been captured in detail, it is the current understanding of Cardno that these areas are to remain undisturbed during the development.
- Portions of the study area were unable to be inspected due to the presence of dense vegetation. These areas were not subjected to a detailed assessment, and whilst dense vegetation was present at the time of the inspection this is not necessarily indicative of the historical land form/use and potential for un-regulated fills and tipping should be considered as possible.
- Best efforts were made to identify potential filling areas that exist within, beneath and surrounding the existing road corridor that may have been imported during construction and maintenance. Despite this, and without earthworks and cut/fill records being provided by TfNSW or other parties, areas of filling and mounding may exist outside of the areas identified by Cardno.
- Records for the use of coal tar containing asphalt are not readily available or searchable. As such, no search or assessment for their potential within the area is possible.
- Assessment of PFAS risk has been considered on the basis of a study area wide assessment, should information come to light that specific areas within the study area may have been subject to activities outlined in **Table 4-10** then more detailed area specific assessments should be undertaken.

6 Conclusions

Cardno has completed a Preliminary Site Investigation for the Study Area with the objectives to provide TfNSW with information on the contamination status on the lands within the Study Area and guide future actions; and to assess whether contamination has the potential to exist on the site and whether further investigation is needed. Based on the results of this assessment the following known contaminating sources and activities have been identified:

- Buried utilities containing asbestos, in particular near University Ave overpass;
- Acid sulphate soils and rock, in soils in low-lying areas and where Illawarra Coal Measure formation rock is intersected;
- Asphalt pavement containing coal tar;
- Fluid spills and vehicle fires as identified in **Figure 5, Appendix A** and general motorway usage; and
- Fly-tipping, uncontrolled filling, stockpiling, dam construction, creek line filing, road construction and associated activities, in particular associated with site levels in UoW lands (i.e. P5 carpark), and between Dumfries Ave and the M1 Motorway.

The following additional activities were identified but are considered to have a low risk of causing contamination on the site:

- Historical construction compound in lands north of TAFE Wollongong;
- Chemical and fuel storage – Building 31b of UoW; and
- Mount Ousley Substation.

Based on potentially completed source-pathway-receptor linkages these sources are considered to pose a potential risk to the following receptors:

- Current and future workers within the study area;
- General public accessing the area for recreation purposes (i.e. exercise);
- Soil and surface water dependent biota;
- Downgradient surface and groundwater users – ecological and human; and
- Site structures due to acid generation by potential ASS.

The identified potential sources of contamination have been preliminarily classified as having a low or medium likelihood of complete exposure pathway for human and ecological receptors. Despite this, the information provided in this report is preliminary in nature and has not confirmed actual conditions or potential contaminant concentrations through sampling and analysis of potentially impacted media. As a result, the suitability of the study area for the proposal has not been determined and a full characterisation of the associated construction risks has not been completed.

6.1 Recommendations

Subject to the limitations provided in **Section 7**, the following recommendations should be considered to gather further information to allow for the identification and management of potential contamination issues, to consider the suitability of the study area for the proposed land use, to inform design, and for consideration during future development and construction of the study area:

- Undertake a Detailed Site Investigation. The investigation strategy should be sufficient to determine if a risk to human and ecological receptors exists as a result of proposed works, whether there is the potential for off-site migration of any identified contamination and/or if management and consideration is required during construction.
  - The assessment may need to consider a variety of assessment approaches depending on the intended use of areas within and adjacent to the study area, such as ancillary compounds to be established and handed-back at the end of construction (i.e. before and after construction due diligence to determine if rectification works are required), or areas along the road corridor that are not to be disturbed by construction.

- Specific targets for intrusive assessment based on the construction footprint identified in this PSI included:
  - Potential fill areas and impact in lands between Dumfries Ave and the M1 Motorway;
  - Fill areas in the vicinity of P5 carpark at UoW; and
  - The historical compound located in cleared land north of TAFE Wollongong.
- General targets that may be wisespread or not known at this stage include:
  - Impacts from the historical motorway usage which are likely constrained to areas adjacent and downgradient of the motorway; and
  - Coal tar in asphalt in the exisiting roads and motorway surfaces.

> Undertake a hazardous building materials assessment of structures within the study area which may be disturbed or demolished by the development to identify hazardous materials which may be disturbed as part of the proposed site redevelopment. This could include service pits and conduits throughout the alignment and residential structures along Mount Ousley Road however it is Cardno's understanding that these structures are not being impacted as part of the proposal.

7 Limitations

This document has been prepared in general accordance with the current industry standards for the purpose and objectives and scope identified in this document. These standards are set out in:

- NEPC (1999) National Environment Protection (Assessment of Site Contamination) Measure (NEPM). National Environment Protection Council (NEPC) 1999, Amendment 2013 (NEPC 2013)
- NSW EPA (2020) Consultants Reporting on Contaminated Land, Contaminated Land Guidelines. NSW EPA, April 2020, Updated May 2020.

The agreed scope of this PSCI has been limited for the current purposes of the TfNSW. Subsurface conditions may vary considerably away from the sample locations where information has been obtained.

This document has been provided by Cardno subject to the following limitations:

- This document has been prepared for the particular purpose outlined in Cardno's proposal and no responsibility is accepted for the use of this document, in whole or in part, in other contexts or for any other purpose
- The scope and the period of Cardno's services are as described in Cardno's proposal, and are subject to restrictions and limitations. Cardno did not perform a complete assessment of all possible conditions or circumstances that may exist at the study area referenced in the document. If a service is not expressly indicated, do not assume it has been provided. If a matter is not addressed, do not assume that any determination has been made by Cardno in regards to it
- Conditions may exist which were undetectable given the limited nature of the enquiry Cardno was retained to undertake with respect to the study area. Variations in conditions may occur between investigatory locations, and there may be special conditions pertaining to the study area which have not been revealed by the investigation and which have not therefore been taken into account in the document. Accordingly, additional studies and actions may be required
- In addition, it is recognised that the passage of time affects the information and assessment provided in this Document. Cardno's opinions are based upon information that existed at the time of the production of the Document. It is understood that the services provided allowed Cardno to form no more than an opinion of the actual conditions of the site at the time this Document was prepared and cannot be used to assess the effect of any subsequent changes in the quality of the site, or its surroundings, or any laws or regulations
- Any assessments made in this Document are based on the conditions indicated from published sources and the investigation described. No warranty is included, either express or implied, that the actual conditions will conform exactly to the assessments contained in this Document
- Where data supplied by the client or other external sources, including previous site investigation data, have been used, it has been assumed that the information is correct unless otherwise stated. No responsibility is accepted by Cardno for incomplete or inaccurate data supplied by others
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This document is not any of the following:

- A site audit report or site audit statement as defined under the *Contaminated Land Management Act 1997*
- A detailed environmental site assessment or environmental site investigation sufficient for an environmental auditor to be able to conclude a site audit report and site audit statement
- A geotechnical report and the bore logs or test pit logs may not be sufficient as the basis for geotechnical advice
- A detailed hydrogeological assessment in conformance with NSW DEC (2007) Contaminated Sites: Guidelines for the Assessment and Management of Groundwater Contamination
- An assessment of groundwater contaminants potentially arising from other sites or sources nearby
- A total assessment of the study area to determine suitability of the entire parcel of land at the study area for one or more beneficial uses of land.

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APPENDIX

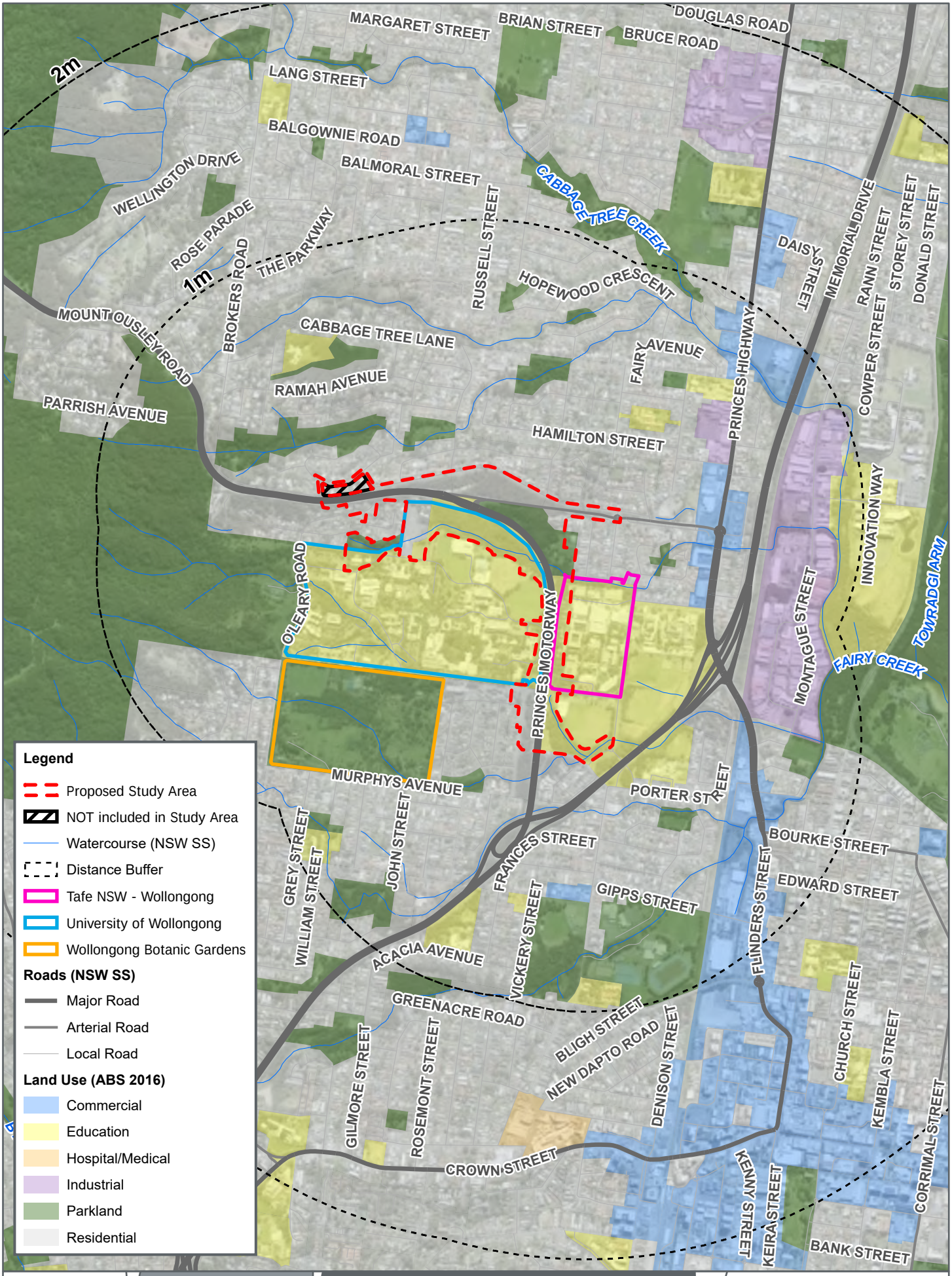
A

FIGURES

Cardno

now

Stantec



NSW Government Transport for NSW

GDA 2020

FIGURE 1

1:20,000 Scale at A4

m

0 150 300 450 600

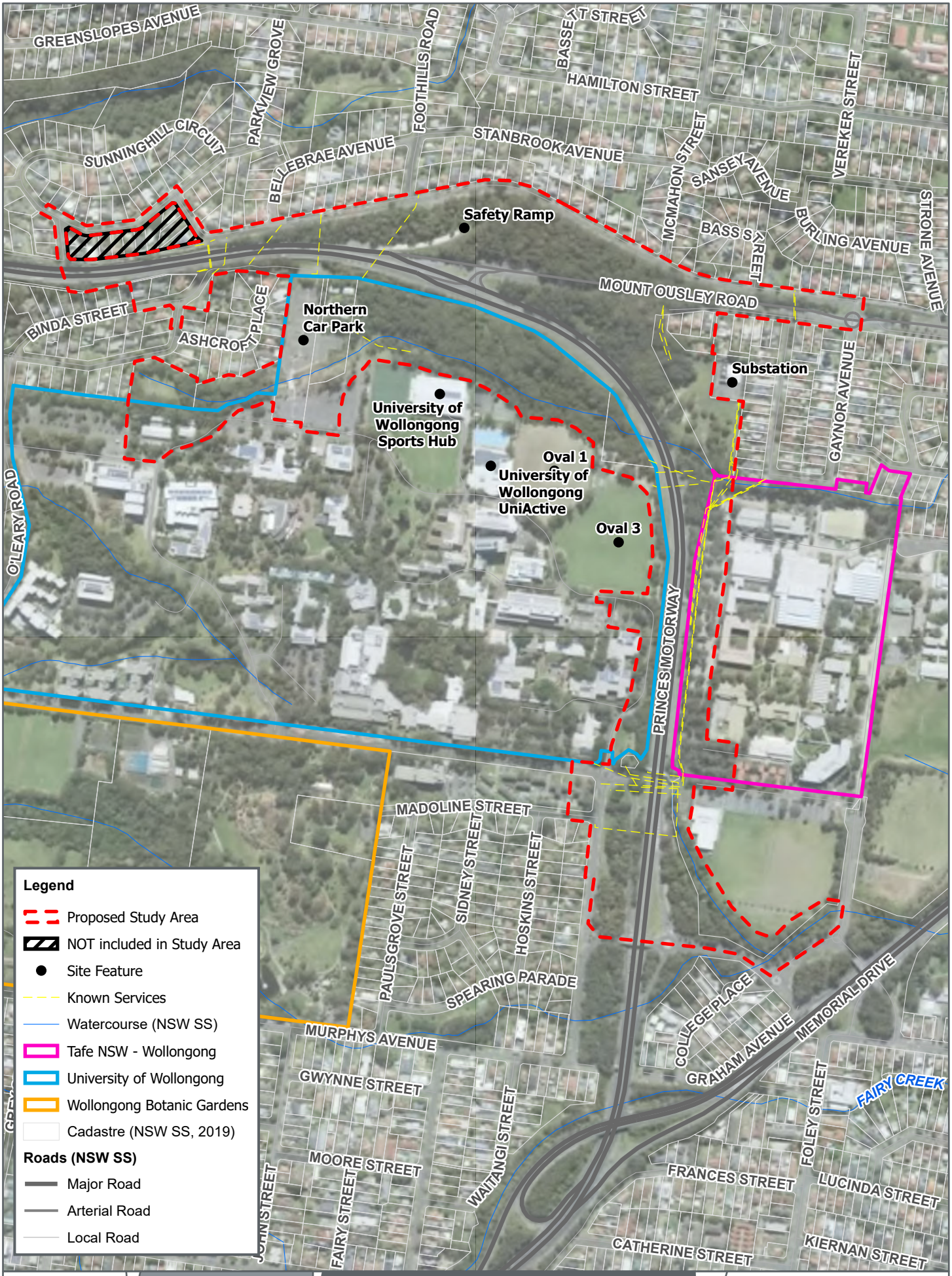
Site Location Plan

MOUNT OUSLEY INTERCHANGE

N

Cardno

Map Produced by Cardno NSW/ACT Pty Ltd (WOL)
Date: 2022-02-24 | Project: 80022042
Coordinate System: GDA2020 MGA Zone 56
Map: 80022042_GS-009_SiteLocationPlan.aprx 02



Transport for NSW

GDA 2020

FIGURE 2

1:7,500 Scale at A4

m

0 50 100 150 200

Site Features

MOUNT OUSLEY INTERCHANGE

N

Cardno

Map Produced by Cardno NSW/ACT Pty Ltd (WOL)
Date: 2022-02-25 | Project: 80022042
Coordinate System: GDA2020 MGA Zone 56
Map: 80022042_GS-010_SiteFeatures.aprx 02

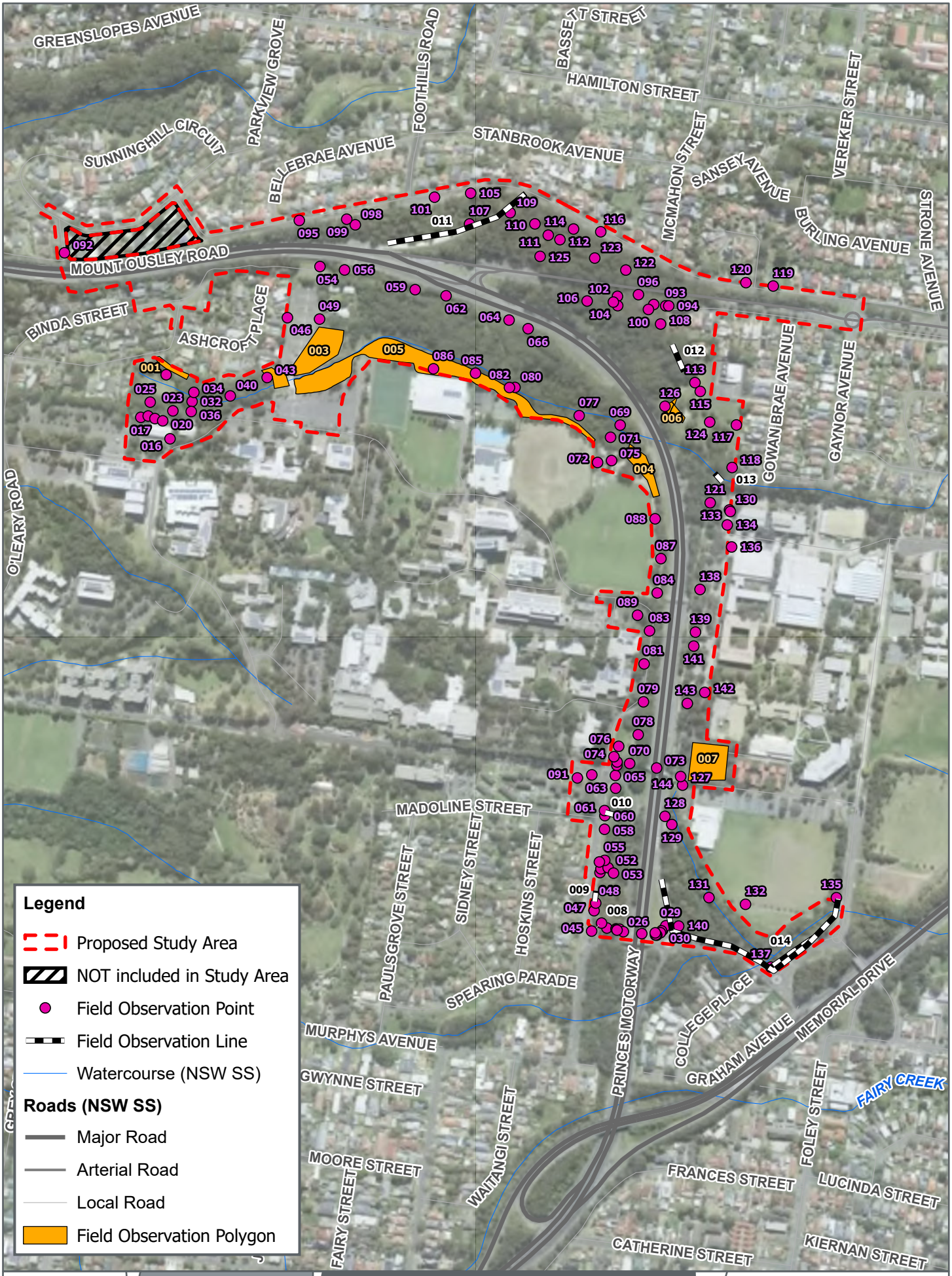


FIGURE 3
1:7,500 Scale at A4
m
0 50 100 150 200

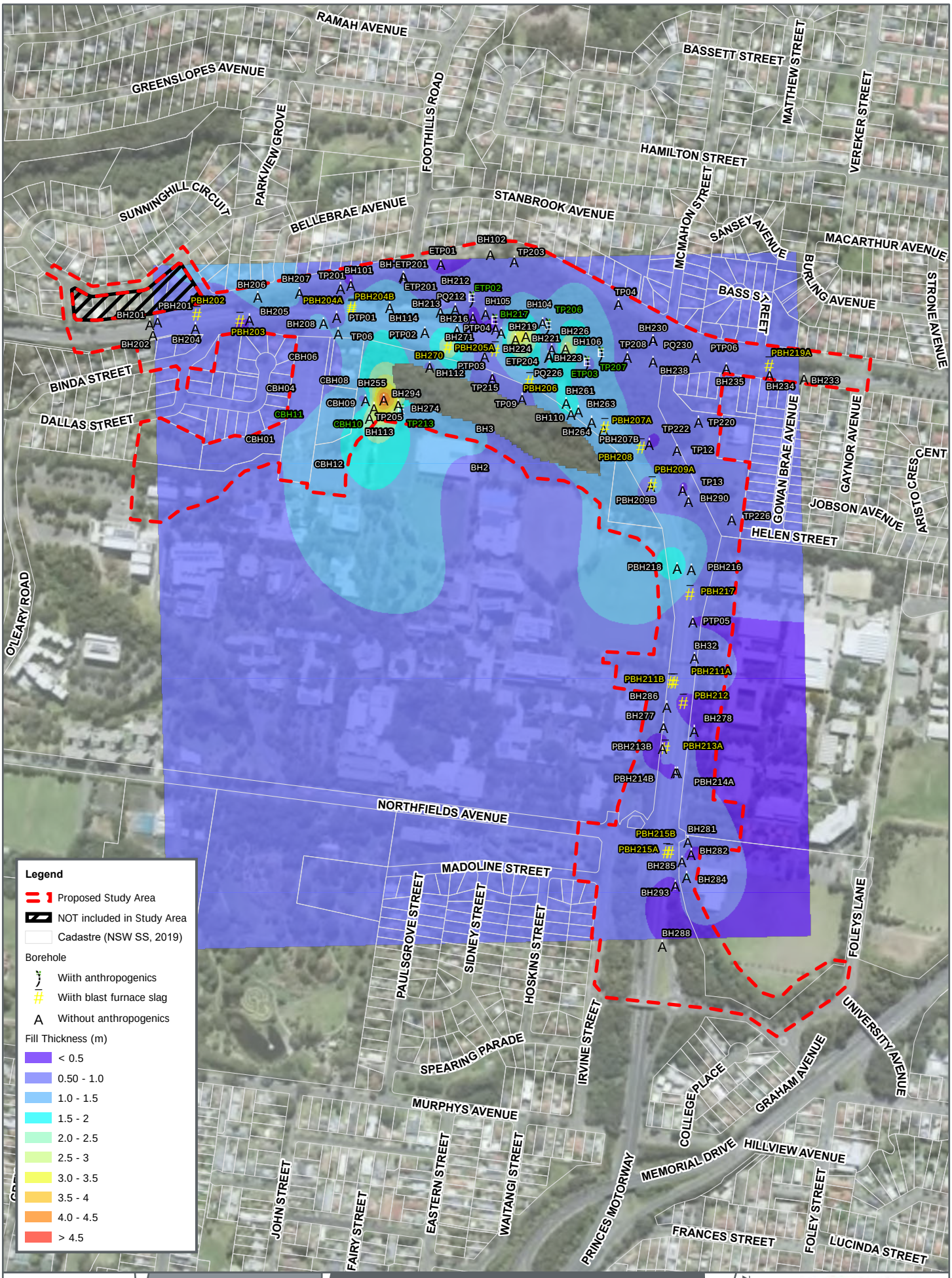
Site Walkover Features

MOUNT OUSLEY INTERCHANGE

Transport for NSW
GDA 2020

Cardno

Map Produced by Cardno NSW/ACT Pty Ltd (WOL)
Date: 2022-02-25 | Project: 80022042
Coordinate System: GDA2020 MGA Zone 56
Map: 80022042_GS-011_SiteWalkoverFeatures.aprx 02



NSW GOVERNMENT Transport for NSW

GDA 2020

FIGURE 4

1:7,500 Scale at A4

m

0 50 100 150 200

Borehole Plan

MOUNT OUSLEY INTERCHANGE

N

Cardno

Map Produced by Cardno NSW/ACT Pty Ltd (WOL)
Date: 2022-02-25 | Project: 80022042
Coordinate System: GDA2020 MGA Zone 56
Map: 80022042_GS-008_BoreholePlan.aprx 02
Aerial imagery supplied by MetroMap (September, 2021)

Previous geotechnical location summary

Location ID	Date	Easting	Northing	Elevation	Fill top	Fill bottom	Fill material type	Fill Category	Comment
BH201	3/03/2019	304678.2	6191282.3	58.41	0	0.8	Asphalt - Sandy gravel	Without anthropogenics	
BH32	20/04/2011	305502.613	6190776.991	16.10	0	0.95	Asphalt - Gravel	Without anthropogenics	
CBH01	19/10/2016				0	1.1	Gravelly sand	Without anthropogenics	
CBH04	19/10/2016				0	0.5	Sandy clay	Without anthropogenics	
CBH06	19/10/2016				0	0.5	Sandy gravel	Without anthropogenics	
CBH08	19/10/2016				0	1	Gravelly clay	Without anthropogenics	
CBH09	19/10/2016				0	0.8	Sandy clay	Without anthropogenics	
CBH10	19/10/2016				0	1.3	Gravelly clay	With anthropogenics	Brick, steel, wood and plastic
CBH11	19/10/2016				0	1.3	Gravelly silty sand	With anthropogenics	Brick, steel, wood, plastic, concrete, tile and trace of cobble size particles and medium plasticity brow/grey clays
CBH12	19/10/2016				0	1	Sandy gravel	Without anthropogenics	
BH2	31/01/2005				0	0.6	Silty clay	Without anthropogenics	
BH3	31/01/2005				0	1.2	Silty clay	Without anthropogenics	
BH202	13/08/2018	304683	6191266.2	58.62	0	1	Asphalt - Sandy gravel - Clayey sand	Without anthropogenics	
BH204	13/08/2018	304747.3	6191276.4	52.84	0.45	1	Asphalt - Silty clay	Without anthropogenics	
BH205	12/11/2018	304829	6191289	45.09	0.1	0.6	Asphalt - Gravel	Without anthropogenics	
BH206	13/11/2018	304841.6	6191323.4	49.57	0.2	1.7	Clay	Without anthropogenics	
BH207	14/11/2018	304904.7	6191329.2	42.82	0	1	Clay	Without anthropogenics	
BH208	7/02/2019	304941.2	6191284	36.02	0	1.2	Gravelly sand	Without anthropogenics	
BH212	29/01/2019	305140.6	6191305.1	37.91	0	1	Sandy clay	Without anthropogenics	

Location ID	Date	Easting	Northing	Elevation	Fill top	Fill bottom	Fill material type	Fill Category	Comment
BH213	23/01/2019	305118.1	6191300.4	37.45	0	1	Clay	Without anthropogenics	
BH216	17/01/2019	305167.2	6191291.6	35.74	0	0.2	Clay	Without anthropogenics	
BH217	23/11/2018	305200.2	6191286.6	34.44	0.02	0.3	Gravel	With anthropogenics	Road base
BH219	10/12/2018	305210	6191269	34.07	0.1	1.2	Asphalt - Gravelly sand -Silty clay	Without anthropogenics	
BH221	6/12/2018	305247.4	6191263.6	33.74	0.1	3.5	Asphalt - Gravelly sand -Clay	Without anthropogenics	
BH223	15/01/2019	305286.6	6191244.2	31.98	0	0.4	Gravelly clay	Without anthropogenics	
BH224	4/12/2018	305231.6	6191258.9	33.45	0.1	3.6	Asphalt - Gravelly sand - Silty clay	Without anthropogenics	
BH226	26/11/2018	305281.6	6191232.6	29.25	0	1.2	Sandy clay	Without anthropogenics	
BH230	22/01/2019	305439.9	6191258.1	38.56	0	0.5	Sandy silt	Without anthropogenics	
BH233	6/02/2019	305668.4	6191199.3	17.55	0	0.6	Asphalt - Gravelly sand	Without anthropogenics	
BH234	6/02/2019	305616.3	6191205.5	21.34	0	0.7	Asphalt - Gravelly sand - Sand	Without anthropogenics	
BH235	5/02/2019	305550.9	6191215.3	28.64	0	0.9	Sandy gravel - Clayey sand	Without anthropogenics	
BH238	16/10/2018	305439.9	6191224.9	38.16	0	1	Sandy silt	Without anthropogenics	
BH255	13/11/2018	305004.6	6191166.6	27.78	0	0.5	Silty clay	Without anthropogenics	
BH261	30/10/2018	305308.3	6191162.7	24.61	0	1.75	Sandy clay	Without anthropogenics	
BH263	28/10/2018	305326.8	6191150.5	23.66	0	1.5	Silty sand - Silt	Without anthropogenics	
BH264	2/11/2018	305347.1	6191134.5	22.61	0	1.5	Silty clay	Without anthropogenics	
BH270	20/08/2018	305129.7	6191247.1	33.34	0.12	3	Asphalt - Base (BFS) - Silty clay	Blast furnance slag (0.12 - 1.5) Without anthropogenics	
BH271	19/08/2018	305143.2	6191272.7	34.51	0	1.3	Organic gravel - Clay	Without anthropogenics	Mulch
BH274	14/11/2018	305054.1	6191159.5	26.82	0	3.7	Silty clay	Without anthropogenics	
BH277	24/10/2018	305455.8	6190671.8	16.66	0	0.65	Silty clay	Without anthropogenics	
BH278	7/11/2018	305502.2	6190666.3	16.09	0	0.5	Sandy gravelly silt	Without anthropogenics	
BH281	18/01/2019	305492.6	6190498.4	14.7	0	0.8	Clay	Without anthropogenics	

Location ID	Date	Easting	Northing	Elevation	Fill top	Fill bottom	Fill material type	Fill Category	Comment
BH282	11/01/2019	305497.6	6190479.9	14.47	0.1	0.4	Concrete - Sandy gravel	Without anthropogenics	
BH284	10/01/2019	305490.6	6190445.2	14.17	0	1.15	Silty sand - Gravelly sand	Without anthropogenics	
BH285	16/01/2019	305483.8	6190468.1	14.19	0	0.5	Clay	Without anthropogenics	
BH286	25/10/2018	305460.8	6190703	16.21	0	0.6	Silty clay	Without anthropogenics	
BH288	18/02/2019	305453.8	6190341	13.77	0	0.5	Sandy clay	Without anthropogenics	
BH290	9/10/2018	305493.6	6191013.9	16.14	0	0.75	Gravelly clay	Without anthropogenics	
BH293	10/01/2019	305473.6	6190431.7	14.15	0	0.3	Clay	Without anthropogenics	
BH294	9/11/2018	305032.3	6191167.8	25.17	0	5	Silty clay	Without anthropogenics	
BH-ETP201	11/02/2019	305062	6191354	41.68	0	1	Clay	Without anthropogenics	
BH101	14/03/2017	304982.5	6191341.5	38.87	0	0.4	Gravelly clay	Without anthropogenics	
BH102	22/02/2017	305193.7	6191388	52.12	0	0.5	Gravelly sand	Without anthropogenics	
BH104	9/03/2017	305272.9	6191283.5	33.96	0	0.9	Asphalt - Gravelly clay - Silty clay	Without anthropogenics	
BH105	10/03/2017	305186.4	6191298.1	35.05	0	0.8	Asphalt - Silty clay	Without anthropogenics	
BH106	7/03/2017	305307.4	6191245	32.84	0	3.1	Silty clay - Silty sand	Without anthropogenics	
BH110	20/02/2017	305315.6	6191146.2	22.38	0	1.5	Silty clay	Without anthropogenics	
BH112	21/02/2017	305101.8	6191217.5	27.85	0	0.7	Sandy clay	Without anthropogenics	
BH113	14/03/2017	305010.7	6191139.6	26.82	0	2.5	Asphalt - Gravelly sand - Silty clay	Without anthropogenics	
BH114	13/03/2017	305041.2	691307.6	35.8	0	1.5	Sand - Sandy gravel	Without anthropogenics	
PQ212	1/02/2019	305140.6	6191305.1	37.91	0	1	Sandy clay	Without anthropogenics	
PQ226	27/11/2018	305281.6	6191232.6	29.25	0	1.2	Sandy clay	Without anthropogenics	
PQ230	30/01/2019	305439.9	6191258.1	38.56	0	0.5	Sandy silt	Without anthropogenics	
TP201	14/11/2018	304966.9	6191336.6	38.56	0	0.6	Clay	Without anthropogenics	
TP203	14/11/2018	305229.9	6191377	51.14	0	0.7	Sandy clay	Without anthropogenics	
TP205	11/02/2019	305017.7	6191155.4	25.92	0	3	Clay	Without anthropogenics	

Location ID	Date	Easting	Northing	Elevation	Fill top	Fill bottom	Fill material type	Fill Category	Comment
TP206	20/11/2018	305281	6191279.2	33.78	0	1.1	Sandy clay	With anthropogenics	Trace refuse material (aluminium cans, plastic, bricks)
TP207	11/10/2018	305361.1	6191236.7	33.01	0	1.5	Sandy clay -clay - silty sand	With anthropogenics	Plastic refuse, including straw and rapping noted at 0.2 m; Underground service encountered in wall of test pit at 1.3 m
TP208	27/11/2018	305401.1	6191232.4	35.37	0	0.6	Sandy gravel	Without anthropogenics	
TP213	19/12/2018	305058.7	6191150.5	25.4	0	0.9	Clay	With anthropogenics	Refuse (metal, concrete, plastic). Services present, excavation terminated at 0.9 m as result
TP215	11/10/2018	305196.6	6191200.3	26.46	0	0.4	Clay	Without anthropogenics	
TP220	27/11/2018	305508.7	6191134.4	27.59	0	0.5	Sandy clay	Without anthropogenics	
TP222	27/11/2018	305434.1	6191100.9	21.36	0	0.3	Sandy clay	Without anthropogenics	
TP226	27/11/2018	305559.1	6190986.4	15.35	0	0.8	Sandy clay	Without anthropogenics	
TP04	27/02/2017	305387.6	6191312.7	43.03	0	0.7	Gravelly sand	Without anthropogenics	
TP06	28/02/2017	304963.3	6191268.4	31.99	0	1.2	Silty sand - Sandy clay	Without anthropogenics	
TP09	3/03/2017	305241.7	6191169.3	23.53	0	0.6	Silty clay - clayey sand	Without anthropogenics	
TP12	27/02/2017	305476.2	6191091.3	22.29	0	0.7	Sandy gravelly clay	Without anthropogenics	
TP13	27/02/2017	305484.7	6191031	16.93	0	0.4	Gravelly sand	Without anthropogenics	
ETP201	29/01/2019	305063	6191352.3	41.68	0	0.7	Gravelly sand - Clay	Without anthropogenics	
ETP204	3/01/2019	305283	6191233.2	29.57	0	1.75	Gravelly clay - Clayey sand	Without anthropogenics	
ETP01	21/03/2017	305118.6	6191372.7	44.99	0	0.3	Silty clay	Without anthropogenics	
ETP02	21/03/2017	305165.5	6191320.6	40.17	0	0.6	Silty sand - Silty clay	With anthropogenics	Brick fragments, sandstone boulders up to 500mm diameter

Location ID	Date	Easting	Northing	Elevation	Fill top	Fill bottom	Fill material type	Fill Category	Comment
ETP03	23/03/2017	305339.8	6191223.3	29.87	0	0.7	Silty clay	With anthropogenics	Sandstone boulders up to 400mm diameter, trace glass fragments
PBH201	12/08/2018	304690.11	6191286.3	57.15	0	0.9	Asphalt - Base (HBM)	Without anthropogenics	
PBH202	12/08/2018	304749.43	6191296.4	52.11	0	0.9	Asphalt - Base (BFS)	Blast furnace slag	
PBH203	19/08/2018	304814.67	6191287.2	46.39	0	0.45	Asphalt - Base (BFS)	Blast furnace slag	
PBH204A	19/08/2018	304983.7	6191305	36.06	0	1.5	Asphalt - Base (BFS) - Fill (Silty clay)	Blast furnace slag (0.16 - 0.2) Without anthropogenics	Fill continues past TD
PBH204B	19/08/2018	304983.98	6191307.5	36.16	0	1.6	Asphalt - Base (BFS) - Fill (Sandy gravel - Sandy clay)	Blast furnace slag (0.12 - 0.3) Without anthropogenics	Fill continues past TD
PBH205A	19/08/2018	305200.91	6191242.6	31.62	0	1	Asphalt - Base (BFS) - Fill (Gravelly sand)	Blast furnace slag (0.12 - 0.25) Without anthropogenics	
PBH206	19/08/2018	305253.17	6191195.6	27.83	0	1.25	Asphalt - Base (BFS) - Fill (Gravelly sand)	Blast furnace slag (0.12 - 0.25) Without anthropogenics	Fill continues past TD
PBH207A	18/02/2019	305367.18	6191126.5	22.2	0	1.5	Asphalt - Base (BFS) - Fill (HBM, Gravelly sand)	Blast furnace slag (0.1 - 1.2) Without anthropogenic	Fill continues past TD
PBH207B	18/02/2019	305365.11	6191123.4	22.05	0	1	Sandy gravel - Clay	Without anthropogenics	
PBH208	3/03/2019	305421.78	6191095.5	20.78	0	1.2	Asphalt - Base (BFS) - Fill (HBM, Clay)	Blast furnace slag	
PBH209A	17/02/2019	305438.91	6191038.4	17.71	0	1.5	Asphalt - Base (BFS) - Fill (HBM, Sandy clay)	Blast furnace slag (0.17 - 1.2) Without anthropogenic	Fill continues past TD
PBH209B	17/02/2019	305436.41	6191037.1	17.62	0	0.56	Asphalt - Base	Without anthropogenics	
PBH211A	11/11/2018	305471.78	6190739.7	16.07	0	0.65	Asphalt - Base (BFS) - Fill (Sandy gravel)	Blast furnace slag (0.1 - 0.18) Without anthropogenics	
PBH211B	11/11/2018	305468.28	6190739.8	15.83	0	0.7	Asphalt - Base (BFS) - Fill (Sandy silt)	Blast furnace slag (0.06 - 0.19) Without anthropogenics	

Location ID	Date	Easting	Northing	Elevation	Fill top	Fill bottom	Fill material type	Fill Category	Comment
PBH212	17/02/2019	305485.62	6190708.6	16.46	0	0.4	Asphalt - Base (BFS)	Blast furnace slag	
PBH213A	17/02/2019	305458.68	6190639.9	16.36	0	0.7	Asphalt - Base (BFS) - Fill (Gravelly sand)	Blast furnace slag (0.06 - 0.3) Without anthropogenics	
PBH213B	17/02/2019	305454.27	6190640.2	16.16	0	0.2	Gravelly sand - Sandy gravel	Without anthropogenics	
PBH214A	18/02/2019	305476.8	6190603.3	16.37	0	0.6	Asphalt - Fill (Sandy gravel) - BFS (0.17 - 0.35) - Fill (Clayey gravel)	Without anthropogenics	
PBH214B	18/02/2019	305473.69	6190603.5	16.45	0	0.4	Asphalt - Base	Without anthropogenics	
PBH215A	3/03/2019	305460.48	6190482.4	15.09	0	0.8	Asphalt - Base (0.23 - 0.52) - Fill (Sandy clay)	Blast furnace slag (0.23 - 0.52) Without anthropogenics	
PBH215B	3/03/2019	305465.06	6190482	14.99	0	0.8	Asphalt - Base (BFS) - Fill (Sandy Clay - Clay)	Blast furnace slag (0.13 - 0.5) Without anthropogenics	
PBH216	17/02/2019	305497.87	6190910.8	15.42	0	1.2	Asphalt - Base (HBM) - Fil (LBM)	Without anthropogenics	
PBH217	17/02/2019	305495.84	6190873.6	15.51	0	0.9	Asphalt - Base (BFS) - Fill (LBM)	Blast furnace slag (0.16 - 0.55) Without anthropogenics	
PBH218	12/11/2018	305476.26	6190913	14.7	0	2	Asphalt - Base - Fill (HBM, Clayey Sand)	Without anthropogenics	
PBH219A	4/03/2019	305615.63	6191219.7	22.62	0	0.65	Asphalt - Base (BFS) - Fill (Clay)	Blast furnace slag (0.19 - 0.3) Without anthropogenics	
PTP01	11/12/2016	304961	6191293	36.1	0	0.38	Asphalt - Base	Without anthropogenics	
PTP02	12/12/2016	305094.44	6191269.94	34.66	0	1.2	Concrete - Asphalt - Fill (HBM, Sandy clayey gravel)	Without anthropogenics	
PTP03	12/12/2016	305185.23	6191233.52	31.85	0	0.7	Fill - Sandy gravel	Without anthropogenics	
PTP04	13/03/2017	305201.74	6191275.01	34.33	0	0.29	Asphalt - Base (HBM) - Fill (Sandy clayey gravel)	Without anthropogenics	

Location ID	Date	Easting	Northing	Elevation	Fill top	Fill bottom	Fill material type	Fill Category	Comment
PTP05	12/12/2016	305500.13	6190831.36	15.88	0	0.46	Asphalt - Base (HBM) - Fill (Sandy gravel)	Without anthropogenics	
PTP06	12/03/2017	305504.75	6191232.71	29.97	0	0.7	Asphalt - Base - Fill	Without anthropogenics	

NSW Government Transport for NSW

GDA 2020

FIGURE 5

1:8,000 Scale at A4

m

0 50 100 150 200

Unplanned Incidents

MOUNT OUSLEY INTERCHANGE

N

Cardno

Map Produced by Cardno NSW/ACT Pty Ltd (WOL)
Date: 2022-02-25 | Project: 80022042
Coordinate System: GDA2020 MGA Zone 56
Map: 80022042_GS-007_UnplannedIncidents.aprx 02
Aerial imagery supplied by MetroMap (September, 2021)

APPENDIX

B

WALKOVER PHOTOGRAPHS

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now

Stantec

Walkover feature list

Feature ID	Description	MGA56 GDA2020	
		Easting	Northing
MOIW-001	Possible fly tipping area	304720	6191122
MOIW-002	Approx. fill embankment	304880	6191107
MOIW-003	Suspicious land form, possible fill	304944	6191148
MOIW-004	Stockpiling and storage area, adjacent east of groundskeepers building	305435	6190971
MOIW-005	Fill platform	305134	6191123
MOIW-006	Exposed imported fill, white bedding sand, road-based gravels	305482	6191056
MOIW-007	Asphalt carpark, new, minor deformations	305533	6190525
MOIW-008	Asphalt gravels covering soil adjacent footpath	305366	6190277
MOIW-009	Concrete handstand overgrown with maintained grass	305362	6190322
MOIW-010	Stormwater channel/pond	305393	6190445
MOIW-011	Truck run off extent	305159	6191331
MOIW-012	Line of concrete handstand south-east with cut metal pole	305487	6191137
MOIW-013	Pedestrian footbridge over shallow creek	305549	6190956
MOIW-014	Fill along road edge, gravel and concrete visible, litter throughout	305659	6190236
MOIW-015	Fill embankment up to 3m from road variable thickness, 1-2m, gravel, concrete visible, surface litter	305577	6190242
MOIW-016	Facilities maintenance building	304718	6191013
MOIW-017	Flammable liquid and fuel storage, 2x AST and 2 lockers	304673	6191046
MOIW-018	Materials storage	304684	6191048
MOIW-019	Maintenance storage, vehicle hoist, pesticide and chemical storage rooms, waste oil storage	304695	6191044
MOIW-020	Stormwater drain, light sheen	304706	6191041
MOIW-021	Stormwater drain, metal grate on northern side of University Ave	305379	6190272
MOIW-022	Service, metal electricity pit	305393	6190271
MOIW-023	Rear of maintenance shed	304722	6191056
MOIW-024	Light post along western side of University Ave bridge	305395	6190270
MOIW-025	Creek line	304688	6191069
MOIW-026	University Ave overpass bridge over freeway	305398	6190271
MOIW-027	Overgrown grass and weeds on freeway cut embankment	305464	6190270
MOIW-028	Possible fly tipping, brick fragments	304712	6191110
MOIW-029	Concrete handstand footpath, minor cracking and discolouration	305468	6190276
MOIW-030	Concrete roundabout freeway exit and University Ave	305462	6190268
MOIW-031	Stormwater drain, metal grate on University Ave east	305460	6190265
MOIW-032	Creek line, adjacent maintenance shed, culverts in creek line	304751	6191070
MOIW-033	Light posts eastern side of bridge	305455	6190262
MOIW-034	Creek line, cloudy, high turbidity water, some litter	304754	6191084
MOIW-035	Loose concrete rubble east of bridge	305453	6190262
MOIW-036	Stormwater drain, rear building 31	304750	6191055
MOIW-037	Electricity underground service pit - ACM	305453	6190262

Feature ID	Description	MGA56 GDA2020	
		Easting	Northing
MOIW-038	Overpass pedestrian handrail - paint faded in patches	305452	6190265
MOIW-039	Northern view of freeway from University Ave	305432	6190264
MOIW-040	Creek line	304809	6191078
MOIW-041	Embankment cut west of freeway - dense vegetation and overgrown grass	305404	6190267
MOIW-042	Rusted broken metal fence adjacent to University Ave	305395	6190269
MOIW-043	Fill embankment, bricks, concrete, timber, steel, electrical cabling, estimate 2-3 m thick	304865	6191106
MOIW-044	Metal overhead light post	305371	6190280
MOIW-045	Concrete and grass roundabout	305356	6190268
MOIW-046	Stormwater pit	304895	6191197
MOIW-047	Topography - site slopes north towards University	305360	6190299
MOIW-048	Overgrown grass, weeds and shrubs - snake in grass	305362	6190310
MOIW-049	Culvert, likely filling around edges	304944	6191195
MOIW-050	Stormwater drain, metal grate along Irvine St	305369	6190356
MOIW-051	Stormwater drain, metal grate on northbound freeway exit	305370	6190362
MOIW-052	Northbound freeway exit - new asphalt	305381	6190364
MOIW-053	Overgrown grass, shrubs and trees - healthy	305389	6190356
MOIW-054	High probability fly tipping area	304945	6191274
MOIW-055	Stormwater drain, metal grate northern side of northbound exit	305376	6190375
MOIW-056	Fill embankment under freeway	304982	6191269
MOIW-057	Overgrown grass, weed, shrubs and trees - healthy	305368	6190373
MOIW-058	Stormwater drain, metal grate eastern side of Irvine St	305376	6190422
MOIW-059	Possible coal	305089	6191239
MOIW-060	Minor cracking and discolouration on foot path	305376	6190443
MOIW-061	Light post adjacent to stormwater channel	305376	6190450
MOIW-062	Fill and ballast under road	305136	6191230
MOIW-063	Maintained grass, healthy mowed grass, minimal bare soils	305393	6190484
MOIW-064	Evidence of filling beneath motorway, culvert	305231	6191193
MOIW-065	Freeway exits and entrance - exits at Irvine St and North Fields Ave	305392	6190504
MOIW-066	Concrete blocks, chain link fence remnant, likely fill	305260	6191180
MOIW-067	Optus, concrete service pit	305394	6190519
MOIW-068	Overhead services, power pole, lines and light post	305395	6190524
MOIW-069	Creek line, crossing	305399	6191034
MOIW-070	Pedestrian footbridge over freeway, concrete	305414	6190522
MOIW-071	Cobbles to boulders in ground, possible fill	305385	6191016
MOIW-072	In-ground tanks, likely water, pumphouse	305365	6190978
MOIW-073	Freeway north and south from pedestrian footbridge	305455	6190515
MOIW-074	Stormwater drain, metal grate on university ring road	305390	6190532
MOIW-075	Maintenance yard, water (?) tanks, vehicle storage	305386	6190980
MOIW-076	Service pits - comms, electricity and sewage	305397	6190548
MOIW-077	Fill platform	305337	6191048

Feature ID	Description	MGA56 GDA2020	
		Easting	Northing
MOIW-078	Mowed and overgrown grass, shrubs, trees	305427	6190565
MOIW-079	Electricity and sewage service pits	305435	6190615
MOIW-080	Culvert, filled creek crossing	305240	6191091
MOIW-081	Stormwater drain, metal grate on Ring Road	305436	6190672
MOIW-082	Fill embankment and drain culvert, some concrete blocks visible	305232	6191091
MOIW-083	Stormwater drain, metal grate of Ring Road	305444	6190722
MOIW-084	New, metal shipping container used for sports storage	305455	6190780
MOIW-085	Culvert	305180	6191113
MOIW-086	Water tanks	305117	6191119
MOIW-087	Stormwater drain, metal grate, dirt and gravel path/road	305461	6190832
MOIW-088	Stormwater drain, metal grate	305452	6190892
MOIW-089	Asphalt car park, minor cracking and light posts	305426	6190746
MOIW-090	Underground services, stormwater, sewage, electricity, comms	305356	6190504
MOIW-091	Residential buildings, potential hazardous materials	305335	6190500
MOIW-092	Possible fly tipping area	304558	6191295
MOIW-093	Topography - on crest, Mt Ousley cutting sloping east	305468	6191215
MOIW-094	Services - water hydrant, light pole, electrical box	305473	6191215
MOIW-095	Motorway noise barrier, overgrown, no obvious tipping	304913	6191344
MOIW-096	Asphalt pieces and stockpile	305427	6191232
MOIW-097	Squares of plywood, soft plastic	305450	6191217
MOIW-098	Landscaped area, adjacent truck run off	304998	6191337
MOIW-099	Monitoring well, appears serviceable, unlocked	304985	6191346
MOIW-100	Exposed bedrock - sandstone on ridge, red grey	305442	6191209
MOIW-101	Truck parked up, gravel access track, dead ends, some litter, no evidence of recent bulk tipping	305118	6191379
MOIW-102	Mound of fill, overgrown with grass adjacent to cutting	305395	6191229
MOIW-103	Rubbish - rubber mat	305396	6191215
MOIW-104	Surface soils - silty sand topsoil	305389	6191220
MOIW-105	Brick and loose dirt, possible aged tipping	305173	6191385
MOIW-106	Dense, overgrown, healthy vegetation	305349	6191222
MOIW-107	Truck run off, built on fill, batters north and south side	305171	6191339
MOIW-108	Topography sloping south to south east	305461	6191187
MOIW-109	Mountain bike track	305233	6191356
MOIW-110	Mountain bike track, mounds appear built from locally won material	305270	6191339
MOIW-111	Ramp and tipped chemical drums	305290	6191322
MOIW-112	End of track	305308	6191315
MOIW-113	Exposed fill soil with asphalt gravel	305513	6191098
MOIW-114	Tipped road barricades	305329	6191331
MOIW-115	Two concrete slabs, potential service	305521	6191085
MOIW-116	Evidence of aged tipping and gravel emplacement, no visible hazmat	305370	6191327
MOIW-117	Energy cable marker	305575	6191034

Feature ID	Description	MGA56 GDA2020	
		Easting	Northing
MOIW-118	Energy service pit and cable marker	305569	6190970
MOIW-119	Substation	305631	6191245
MOIW-120	Mt Ousley road embankment, bricks, concrete and asphalt fragments visible at surface	305590	6191250
MOIW-121	Electrical high voltage green substation	305536	6190916
MOIW-122	Top of embankment, no visible evidence of filling	305408	6191269
MOIW-123	Monitoring well, locked, bh225	305361	6191287
MOIW-124	Exposed soils with possible hc spill on soils, black, sheen	305535	6191039
MOIW-125	Mt Ousley carpark, culvert, likely fill east end	305278	6191290
MOIW-126	Metal highway access gate, sewage man hole, power service	305467	6191063
MOIW-127	Old tennis court, endeavour energy markers	305494	6190489
MOIW-128	Culvert, downstream	305467	6190442
MOIW-129	Sawdust pile	305478	6190429
MOIW-130	Two blue metal shipping containers	305565	6190906
MOIW-131	Creekline	305534	6190319
MOIW-132	Tafe works area	305589	6190308
MOIW-133	New and old fire hydrant	305566	6190903
MOIW-134	Metal sewage vent in concrete handstand	305562	6190883
MOIW-135	Waste and culvert, possible fill or cut to establish levels	305727	6190318
MOIW-136	Chemical and gas lockup storage units	305568	6190850
MOIW-137	Culvert	305627	6190213
MOIW-138	Two small piles of wood chips and mulch	305520	6190785
MOIW-139	Metal water tap attached to wooden post in ground	305513	6190721
MOIW-140	Fill embankment for overpass	305488	6190275
MOIW-141	Stockpile of mulch with leaves	305511	6190699
MOIW-142	Stormwater drain, two metal grates on road	305527	6190629
MOIW-143	Blue metal skip bin, no rubbish inside	305501	6190613
MOIW-144	Water pump	305491	6190502

MOIW-006 Exposed imported fill, white bedding sand, road based gravels

24/01/2022

CM/ED 6191056 305482

MOIW-006 Exposed imported fill, white bedding sand, road based gravels

24/01/2022

CM/ED 6191056 305482

MOIW-006 Exposed imported fill, white bedding sand, road based gravels

24/01/2022

CM/ED 6191056 305482

MOIW-006 Exposed imported fill, white bedding sand, road based gravels

24/01/2022

CM/ED 6191056 305482

MOIW-006 Exposed imported fill, white bedding sand, road based gravels

24/01/2022

CM/ED 6191056 305482

MOIW-007 Asphalt carpark, new, minor deformations

24/01/2022

CM/ED 6190525 305533

MOIW-007 Asphalt carpark, new, minor deformations

24/01/2022

CM/ED 6190525 305533

MOIW-007 Asphalt carpark, new, minor deformations

24/01/2022

CM/ED 6190525 305533

MOIW-008 Asphalt gravels covering soil adjacent footpath

24/01/2022

CM 6190277 305366

MOIW-008 Asphalt gravels covering soil adjacent footpath

24/01/2022

CM 6190277 305366

MOIW-008 Asphalt gravels covering soil adjacent footpath

24/01/2022

CM 6190277 305366

MOIW-008 Asphalt gravels covering soil adjacent footpath

24/01/2022

CM 6190277 305366

MOIW-008 Asphalt gravels covering soil adjacent footpath

24/01/2022

CM 6190277 305366

MOIW-009 Concrete handstand overgrown with maintained grass

24/01/2022

CM 6190322 305362

MOIW-009 Concrete handstand overgrown with maintained grass

24/01/2022

CM 6190322 305362

MOIW-009 Concrete handstand overgrown with maintained grass

24/01/2022

CM 6190322 305362

MOIW-010 Stormwater channel/pond

24/01/2022

CM 6190445 305393

MOIW-010 Stormwater channel/pond

24/01/2022

CM 6190445 305393

MOIW-010 Stormwater channel/pond

24/01/2022

CM 6190445 305393

MOIW-010 Stormwater channel/pond

24/01/2022

CM 6190445 305393

MOIW-010 Stormwater channel/pond

24/01/2022

CM 6190445 305393

MOIW-012 Line of concrete handstand south-east with cut metal pole

24/01/2022

CM/ED 6191137 305487

MOIW-012 Line of concrete handstand south-east with cut metal pole

24/01/2022

CM/ED 6191137 305487

MOIW-012 Line of concrete handstand south-east with cut metal pole

24/01/2022

CM/ED 6191137 305487

MOIW-012 Line of concrete handstand south-east with cut metal pole

24/01/2022

CM/ED 6191137 305487

MOIW-012 Line of concrete handstand south-east with cut metal pole

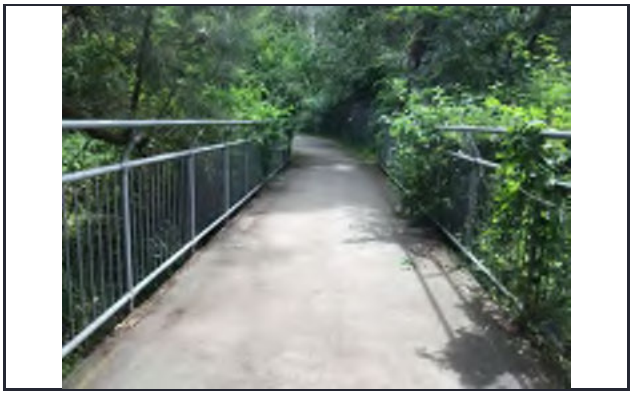
24/01/2022

CM/ED 6191137 305487

MOW-013 Pedestrian footbridge over shallow creek

24/01/2022

CM/ED 6190956 305549



MOW-013 Pedestrian footbridge over shallow creek

24/01/2022

CM/ED 6190956 305549

MOW-013 Pedestrian footbridge over shallow creek

24/01/2022

CM/ED 6190956 305549

MOIW-014 Fill along road edge, gravel and concrete visible, litter throughout

23/01/2022

CC 6190236 305659

MOIW-014
Fill along road edge, gravel and concrete visible, litter throughout
23/01/2022
CC 6190236 305659

MOIW-014
Fill along road edge, gravel and concrete visible, litter throughout
23/01/2022
CC 6190236 305659

MOIW-015
Fill embankment up to 3m from road variable thickness, 1-2m, gravel, concrete visible, surface litter
23/01/2022
CC 6190242 305577

MOIW-015
Fill embankment up to 3m from road variable thickness, 1-2m, gravel, concrete visible, surface litter
23/01/2022
CC 6190242 305577

MOIW-015
Fill embankment up to 3m from road variable thickness, 1-2m, gravel, concrete visible, surface litter
23/01/2022
CC 6190242 305577

MOIW-015
Fill embankment up to 3m from road variable thickness, 1-2m, gravel, concrete visible, surface litter
23/01/2022
CC 6190242 305577

MOIW-016 Facilities maintenance building

23/01/2022

CC 6191013.3692 304717.5208

MOIW-017 Flammable liquid and fuel storage, 2x AST and 2 lockers

23/01/2022

CC 6191045.8722 304673.2493

MOIW-017 Flammable liquid and fuel storage, 2x AST and 2 lockers

23/01/2022

CC 6191045.8722 304673.2493

MOIW-017 Flammable liquid and fuel storage, 2x AST and 2 lockers

23/01/2022

CC 6191045.8722 304673.2493

MOIW-017 Flammable liquid and fuel storage, 2x AST and 2 lockers

23/01/2022

CC 6191045.8722 304673.2493

MOIW-017 Flammable liquid and fuel storage, 2x AST and 2 lockers

23/01/2022

CC 6191045.8722 304673.2493

MOIW-018	Materials storage			MOIW-019	Maintenance storage, vehicle hoist, pesticide and chemical storage rooms, waste oil storage		
23/01/2022				23/01/2022			
CC		6191047.8849	304684.4875	CC		6191043.9844	304694.7092

MOIW-019	Maintenance storage, vehicle hoist, pesticide and chemical storage rooms, waste oil storage			MOIW-019	Maintenance storage, vehicle hoist, pesticide and chemical storage rooms, waste oil storage		
23/01/2022				23/01/2022			
CC		6191043.9844	304694.7092	CC		6191043.9844	304694.7092

MOIW-019	Maintenance storage, vehicle hoist, pesticide and chemical storage rooms, waste oil storage			MOIW-019	Maintenance storage, vehicle hoist, pesticide and chemical storage rooms, waste oil storage		
23/01/2022				23/01/2022			
CC		6191043.9844	304694.7092	CC		6191043.9844	304694.7092

[redacted]

MOIW-019 Maintenance storage, vehicle hoist, pesticide and chemical storage rooms, waste oil storage

23/01/2022

CC 6191043.9844 304694.7092

MOIW-019 Maintenance storage, vehicle hoist, pesticide and chemical storage rooms, waste oil storage

23/01/2022

CC 6191043.9844 304694.7092

[redacted]

MOIW-019 Maintenance storage, vehicle hoist, pesticide and chemical storage rooms, waste oil storage

23/01/2022

CC 6191043.9844 304694.7092

MOIW-019 Maintenance storage, vehicle hoist, pesticide and chemical storage rooms, waste oil storage

23/01/2022

CC 6191043.9844 304694.7092

[redacted]

MOIW-019 Maintenance storage, vehicle hoist, pesticide and chemical storage rooms, waste oil storage

23/01/2022

CC 6191043.9844 304694.7092

MOIW-020 Stormwater drain, light sheen

23/01/2022

CC 6191040.5726 304706.4488

MOIW-020 Stormwater drain, light sheen

23/01/2022

CC 6191040.5726 304706.4488

MOIW-021 Stormwater drain, metal grate on northern side of University Ave

23/01/2022

CM 6190272.4771 305379.2474

MOIW-021 Stormwater drain, metal grate on northern side of University Ave

23/01/2022

CM 6190272.4771 305379.2474

MOIW-021 Stormwater drain, metal grate on northern side of University Ave

23/01/2022

CM 6190272.4771 305379.2474

MOIW-022 Service, metal electricity pit

23/01/2022

CM 6190271.1871 305392.9566

MOIW-022 Service, metal electricity pit

23/01/2022

CM 6190271.1871 305392.9566

MOIW-023 Rear of maintenance shed

23/01/2022

CC 6191055.6576 304721.8784

MOIW-023 Rear of maintenance shed

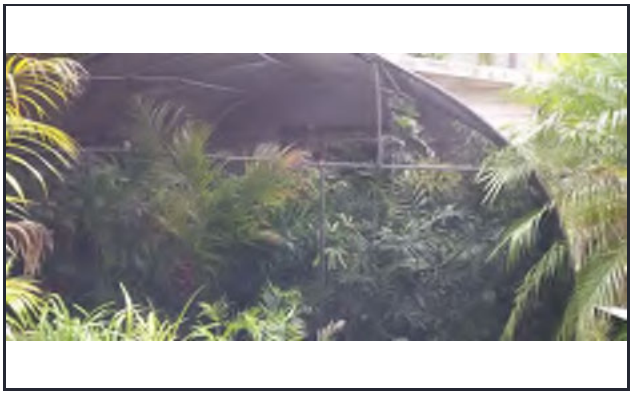
23/01/2022

CC 6191055.6576 304721.8784

MOIW-023 Rear of maintenance shed

23/01/2022

CC 6191055.6576 304721.8784



MOIW-023 Rear of maintenance shed

23/01/2022

CC 6191055.6576 304721.8784

MOIW-024 Light post along western side of University Ave bridge

23/01/2022

CM 6190270.4475 305394.506

MOIW-024 Light post along western side of University Ave bridge

23/01/2022

CM 6190270.4475 305394.506

MOIW-024 Light post along western side of University Ave bridge

23/01/2022

CM 6190270.4475 305394.506

MOIW-024 Light post along western side of University Ave bridge

23/01/2022

CM 6190270.4475 305394.506

MOIW-025 Creek line

23/01/2022

CC 6191068.8909 304687.5268

MOIW-025 Creek line

23/01/2022

CC 6191068.8909 304687.5268

MOIW-026 University Ave overpass bridge over freeway

23/01/2022

CM 6190270.6735 305398.4172

MOIW-026 University Ave overpass bridge over freeway

23/01/2022

CM 6190270.6735 305398.4172

MOIW-026 University Ave overpass bridge over freeway

23/01/2022

CM 6190270.6735 305398.4172

MOIW-027 Overgrown grass and weeds on freeway cut embankment

23/01/2022

CM 6190269.5808 305463.876

MOIW-027 Overgrown grass and weeds on freeway cut embankment

23/01/2022

CM 6190269.5808 305463.876

MOIW-027 Overgrown grass and weeds on freeway cut embankment

23/01/2022

CM 6190269.5808 305463.876

MOIW-027 Overgrown grass and weeds on freeway cut embankment

23/01/2022

CM 6190269.5808 305463.876

MOIW-028 Possible fly tipping, brick fragments

23/01/2022

CC 6191110.3783 304711.7288

MOIW-028 Possible fly tipping, brick fragments

23/01/2022

CC 6191110.3783 304711.7288

MOIW-029 Concrete handstand footpath, minor cracking and discolouration

23/01/2022

CM 6190275.8379 305468.4396

MOIW-029 Concrete handstand footpath, minor cracking and discolouration

23/01/2022

CM 6190275.8379 305468.4396

MOIW-029 Concrete handstand footpath, minor cracking and discolouration

23/01/2022

CM 6190275.8379 305468.4396

MOIW-030 Concrete roundabout freeway exit and University Ave

23/01/2022

CM 6190268.196 305461.9238

MOIW-031 Stormwater drain, metal grate on University Ave east

23/01/2022

CM 6190265.3764 305460.2869

MOIW-031 Stormwater drain, metal grate on University Ave east

23/01/2022

CM 6190265.3764 305460.2869

MOIW-031 Stormwater drain, metal grate on University Ave east

23/01/2022

CM 6190265.3764 305460.2869

MOIW-032 Creek line, adjacent maintenance shed, culverts in creek line

23/01/2022

CC 6191069.9049 304750.9879

MOIW-032 Creek line, adjacent maintenance shed, culverts in creek line

23/01/2022

CC 6191069.9049 304750.9879

MOIW-033 Light posts eastern side of bridge

23/01/2022

CM 6190261.6486 305454.807

MOIW-033 Light posts eastern side of bridge

23/01/2022

CM 6190261.6486 305454.807

MOIW-033 Light posts eastern side of bridge

23/01/2022

CM 6190261.6486 305454.807

MOIW-034 Creek line, cloudy, high turbidity water, some litter

23/01/2022

CC 6191083.6475 304753.6338

MOIW-034 Creek line, cloudy, high turbidity water, some litter

23/01/2022

CC 6191083.6475 304753.6338

MOIW-034 Creek line, cloudy, high turbidity water, some litter

23/01/2022

CC 6191083.6475 304753.6338

MOIW-035 Loose concrete rubble east of bridge

23/01/2022

CM 6190261.8584 305452.8295

MOIW-035 Loose concrete rubble east of bridge

23/01/2022

CM 6190261.8584 305452.8295

MOIW-035 Loose concrete rubble east of bridge

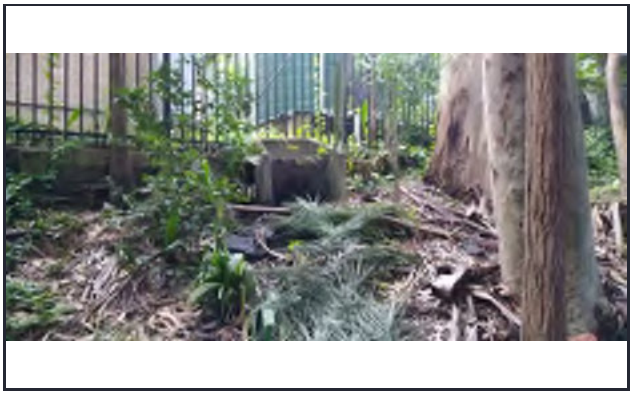
23/01/2022

CM 6190261.8584 305452.8295

MOIW-035 Loose concrete rubble east of bridge

23/01/2022

CM 6190261.8584 305452.8295



MOIW-036 Stormwater drain, rear building 31

23/01/2022

CC 6191054.6716 304749.6669

MOIW-037 Electricity underground service pit - ACM

23/01/2022

CM 6190262.164 305453.4396

MOIW-037 Electricity underground service pit - ACM

23/01/2022

CM 6190262.164 305453.4396

MOIW-037 Electricity underground service pit - ACM

23/01/2022

CM 6190262.164 305453.4396

MOIW-038 Overpass pedestrian handrail - paint faded in patches

23/01/2022

CM 6190265.1991 305452.4743

MOIW-038 Overpass pedestrian handrail - paint faded in patches

23/01/2022

CM 6190265.1991 305452.4743

MOIW-039 Northern view of freeway from University Ave

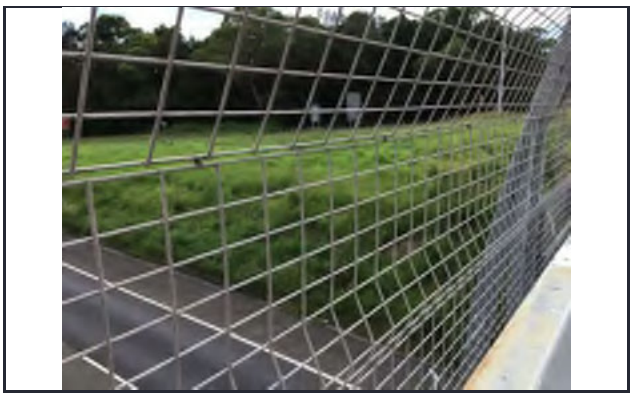
23/01/2022

CM 6190264.0194 305432.0643

MOIW-039 Northern view of freeway from University Ave

23/01/2022

CM 6190264.0194 305432.0643



MOIW-039 Northern view of freeway from University Ave

23/01/2022

CM 6190264.0194 305432.0643

MOIW-039 Northern view of freeway from University Ave

23/01/2022

CM 6190264.0194 305432.0643

MOIW-039 Northern view of freeway from University Ave

23/01/2022

CM 6190264.0194 305432.0643

MOIW-039 Northern view of freeway from University Ave

23/01/2022

CM 6190264.0194 305432.0643

MOIW-040 Creek line

24/01/2022

CC 6191078.2698 304808.8059

MOIW-040 Creek line

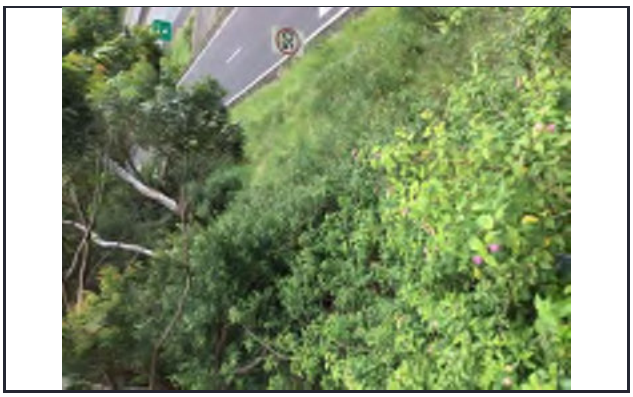
24/01/2022

CC 6191078.2698 304808.8059

MOIW-041 Embankment cut west of freeway - dense vegetation and overgrown grass

24/01/2022

CM 6190266.9154 305404.1767



MOIW-041 Embankment cut west of freeway - dense vegetation and overgrown grass

24/01/2022

CM 6190266.9154 305404.1767

MOIW-041
24/01/2022
CM

Embankment cut west of freeway - dense vegetation and overgrown grass

6190266.9154 305404.1767

MOIW-041
24/01/2022
CM

Embankment cut west of freeway - dense vegetation and overgrown grass

6190266.9154 305404.1767

MOIW-041
24/01/2022
CM

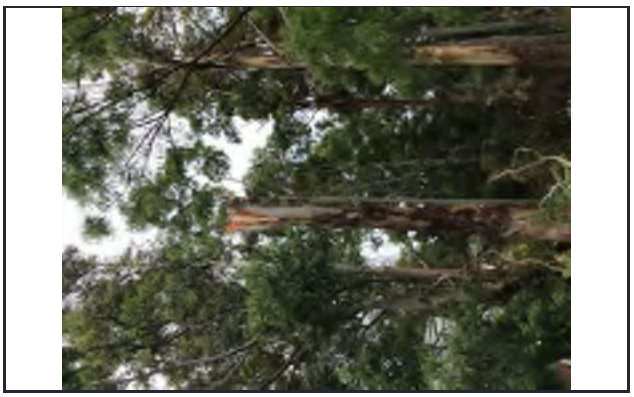
Embankment cut west of freeway - dense vegetation and overgrown grass

6190266.9154 305404.1767

MOIW-041
24/01/2022
CM

Embankment cut west of freeway - dense vegetation and overgrown grass

6190266.9154 305404.1767



MOIW-041
24/01/2022
CM

Embankment cut west of freeway - dense vegetation and overgrown grass

6190266.9154 305404.1767

MOIW-042
24/01/2022
CM

Rusted broken metal fence adjacent to University Ave

6190269.3478 305394.6215

MOIW-042 Rusted broken metal fence adjacent to University Ave

24/01/2022

CM 6190269.3478 305394.6215

MOIW-042 Rusted broken metal fence adjacent to University Ave

24/01/2022

CM 6190269.3478 305394.6215

MOIW-043 Fill embankment, bricks, concrete, timber, steel, electrical cabling, est 2-3 m thick

24/01/2022

CC 6191106.1702 304864.6466

MOIW-043 Fill embankment, bricks, concrete, timber, steel, electrical cabling, est 2-3 m thick

24/01/2022

CC 6191106.1702 304864.6466

MOIW-043 Fill embankment, bricks, concrete, timber, steel, electrical cabling, est 2-3 m thick

24/01/2022

CC 6191106.1702 304864.6466

MOIW-044 Metal overhead light post

24/01/2022

CM 6190279.9477 305371.1132

MOIW-044 Metal overhead light post

24/01/2022

CM 6190279.9477 305371.1132

MOIW-044 Metal overhead light post

24/01/2022

CM 6190279.9477 305371.1132

MOIW-044 Metal overhead light post

24/01/2022

CM 6190279.9477 305371.1132

MOIW-045 Concrete and grass roundabout

24/01/2022

CM 6190267.8184 305356.0741

MOIW-046 Stormwater pit

24/01/2022

CC 6191196.7996 304895.3622

MOIW-047 Topography - site slopes north towards University

24/01/2022

CM 6190298.7143 305359.8831

MOIW-047 Topography - site slopes north towards University

24/01/2022

CM 6190298.7143 305359.8831

MOIW-047 Topography - site slopes north towards University

24/01/2022

CM 6190298.7143 305359.8831

MOIW-048 Overgrown grass, weeds and shrubs - snake in grass

24/01/2022

CM 6190310.2847 305362.3468

MOIW-048 Overgrown grass, weeds and shrubs - snake in grass

24/01/2022

CM 6190310.2847 305362.3468

MOIW-048 Overgrown grass, weeds and shrubs - snake in grass

24/01/2022

CM 6190310.2847 305362.3468

MOIW-048 Overgrown grass, weeds and shrubs - snake in grass

24/01/2022

CM 6190310.2847 305362.3468

MOIW-049 Culvert, likely filling around edges

24/01/2022

CC 6191194.6465 304944.0091

MOIW-049 Culvert, likely filling around edges

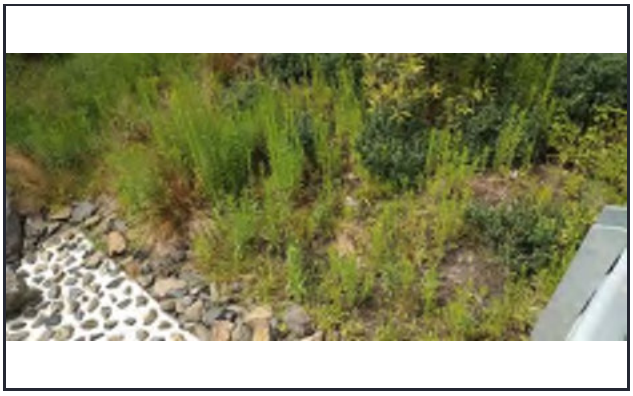
24/01/2022

CC 6191194.6465 304944.0091

MOIW-049 Culvert, likely filling around edges

24/01/2022

CC 6191194.6465 304944.0091



MOIW-049 Culvert, likely filling around edges

24/01/2022

CC 6191194.6465 304944.0091

MOIW-050 Stormwater drain, metal grate along Irvine St

24/01/2022

CM 6190356.4387 305368.7749

MOIW-050 Stormwater drain, metal grate along Irvine St

24/01/2022

CM 6190356.4387 305368.7749

MOIW-050 Stormwater drain, metal grate along Irvine St

24/01/2022

CM	6190356.4387	305368.7749

MOIW-051 Stormwater drain, metal grate on northbound freeway exit

24/01/2022

CM	6190362.1131	305370.1516

MOIW-051 Stormwater drain, metal grate on northbound freeway exit

24/01/2022

CM	6190362.1131	305370.1516

MOIW-051 Stormwater drain, metal grate on northbound freeway exit

24/01/2022

CM	6190362.1131	305370.1516

MOIW-051 Stormwater drain, metal grate on northbound freeway exit

24/01/2022

CM	6190362.1131	305370.1516

MOIW-051 Stormwater drain, metal grate on northbound freeway exit

24/01/2022

CM	6190362.1131	305370.1516

MOIW-052 Northbound freeway exit - new asphalt

24/01/2022

CM 6190363.8055 305381.0468

MOIW-052 Northbound freeway exit - new asphalt

24/01/2022

CM 6190363.8055 305381.0468

MOIW-052 Northbound freeway exit - new asphalt

24/01/2022

CM 6190363.8055 305381.0468

MOIW-052 Northbound freeway exit - new asphalt

24/01/2022

CM 6190363.8055 305381.0468

MOIW-053 Overgrown grass, shrubs and trees - healthy

24/01/2022

CM 6190355.6523 305389.2262

MOIW-053 Overgrown grass, shrubs and trees - healthy

24/01/2022

CM 6190355.6523 305389.2262

MOIW-053	Overgrown grass, shrubs and trees - healthy	
24/01/2022		
CM	6190355.6523	305389.2262

MOIW-053	Overgrown grass, shrubs and trees - healthy	
24/01/2022		
CM	6190355.6523	305389.2262

MOIW-053	Overgrown grass, shrubs and trees - healthy	
24/01/2022		
CM	6190355.6523	305389.2262

MOIW-053	Overgrown grass, shrubs and trees - healthy	
24/01/2022		
CM	6190355.6523	305389.2262

MOIW-053	Overgrown grass, shrubs and trees - healthy	
24/01/2022		
CM	6190355.6523	305389.2262

MOIW-054	High probability fly tipping area	
24/01/2022		
CC	6191274.219	304944.6318

MOIW-054 High probability fly tipping area

24/01/2022

CC 6191274.219 304944.6318

MOIW-054 High probability fly tipping area

24/01/2022

CC 6191274.219 304944.6318

MOIW-054 High probability fly tipping area

24/01/2022

CC 6191274.219 304944.6318

MOIW-054 High probability fly tipping area

24/01/2022

CC 6191274.219 304944.6318

MOIW-055 Stormwater drain, metal grate northern side of northbound exit

24/01/2022

CM 6190374.9569 305375.919

MOIW-055 Stormwater drain, metal grate northern side of northbound exit

24/01/2022

CM 6190374.9569 305375.919

MOIW-055 Stormwater drain, metal grate northern side of northbound exit

24/01/2022

CM 6190374.9569 305375.919

MOIW-055 Stormwater drain, metal grate northern side of northbound exit

24/01/2022

CM 6190374.9569 305375.919

MOIW-056 Fill embankment under freeway

24/01/2022

CC 6191269.0427 304981.9146

MOIW-056 Fill embankment under freeway

24/01/2022

CC 6191269.0427 304981.9146

MOIW-056 Fill embankment under freeway

24/01/2022

CC 6191269.0427 304981.9146

MOIW-057 Overgrown grass, weed, shrubs and trees - healthy

24/01/2022

CM 6190372.5519 305367.8676

MOIW-057 Overgrown grass, weed, shrubs and trees - healthy

24/01/2022

CM 6190372.5519 305367.8676

MOIW-057 Overgrown grass, weed, shrubs and trees - healthy

24/01/2022

CM 6190372.5519 305367.8676

MOIW-057 Overgrown grass, weed, shrubs and trees - healthy

24/01/2022

CM 6190372.5519 305367.8676

MOIW-057 Overgrown grass, weed, shrubs and trees - healthy

24/01/2022

CM 6190372.5519 305367.8676

MOIW-058 Stormwater drain, metal grate eastern side of Irvine St

24/01/2022

CM 6190422.0313 305375.6523

MOIW-058 Stormwater drain, metal grate eastern side of Irvine St

24/01/2022

CM 6190422.0313 305375.6523

MOIW-058 Stormwater drain, metal grate eastern side of Irvine St

24/01/2022

CM 6190422.0313 305375.6523

MOIW-059 Possible coal

24/01/2022

CC 6191239.2125 305088.85

MOIW-060 Minor cracking and discolouration on foot path

24/01/2022

CM 6190442.7316 305376.1755

MOIW-060 Minor cracking and discolouration on foot path

24/01/2022

CM 6190442.7316 305376.1755

MOIW-061 Light post adjacent to stormwater channel

24/01/2022

CM 6190450.3756 305375.6767

MOIW-061 Light post adjacent to stormwater channel

24/01/2022

CM 6190450.3756 305375.6767

MOIW-062 Fill and ballast under road

24/01/2022

CC 6191229.9644 305135.6496

MOIW-063 Maintained grass, healthy mowed grass, minimal bare soils

24/01/2022

CM 6190484.2242 305392.5295

MOIW-063 Maintained grass, healthy mowed grass, minimal bare soils

24/01/2022

CM 6190484.2242 305392.5295

MOIW-063 Maintained grass, healthy mowed grass, minimal bare soils

24/01/2022

CM 6190484.2242 305392.5295

MOIW-063 Maintained grass, healthy mowed grass, minimal bare soils

24/01/2022

CM 6190484.2242 305392.5295

MOIW-064 Evidence of filling beneath motorway, culvert

24/01/2022

CC 6191193.1632 305231.0414

MOIW-064 Evidence of filling beneath motorway, culvert

24/01/2022

CC 6191193.1632 305231.0414

MOIW-065 Freeway exits and entrance - exits at Irvine St and North Fields Ave

24/01/2022

CM 6190503.5827 305392.0479

MOIW-065 Freeway exits and entrance - exits at Irvine St and North Fields Ave

24/01/2022

CM 6190503.5827 305392.0479

MOIW-065 Freeway exits and entrance - exits at Irvine St and North Fields Ave

24/01/2022

CM 6190503.5827 305392.0479

MOIW-065 Freeway exits and entrance - exits at Irvine St and North Fields Ave

24/01/2022

CM 6190503.5827 305392.0479

MOIW-065 Freeway exits and entrance - exits at Irvine St and North Fields Ave

24/01/2022

CM 6190503.5827 305392.0479

MOIW-066 Concrete blocks, chain link fence remnant, likely fill

24/01/2022

CC 6191180.1038 305259.9227

MOIW-066 Concrete blocks, chain link fence remnant, likely fill

24/01/2022

CC 6191180.1038 305259.9227

MOIW-066 Concrete blocks, chain link fence remnant, likely fill

24/01/2022

CC 6191180.1038 305259.9227

MOIW-067 Optus, concrete service pit

24/01/2022

CM 6190518.801 305394.3817

MOIW-067 Optus, concrete service pit

24/01/2022

CM 6190518.801 305394.3817

MOIW-068 Overhead services, power pole, lines and light post

24/01/2022

CM 6190523.9694 305394.69

MOIW-068 Overhead services, power pole, lines and light post

24/01/2022

CM 6190523.9694 305394.69

MOIW-069 Creek line, crossing

24/01/2022

CC 6191034.1183 305399.3525

MOIW-069 Creek line, crossing

24/01/2022

CC 6191034.1183 305399.3525

MOIW-070 Pedestrian footbridge over freeway, concrete

24/01/2022

CM 6190521.5798 305413.7298

MOIW-070 Pedestrian footbridge over freeway, concrete

24/01/2022

CM 6190521.5798 305413.7298

MOIW-070 Pedestrian footbridge over freeway, concrete

24/01/2022

CM 6190521.5798 305413.7298

MOIW-070 Pedestrian footbridge over freeway, concrete

24/01/2022

CM 6190521.5798 305413.7298

MOIW-070 Pedestrian footbridge over freeway, concrete

24/01/2022

CM 6190521.5798 305413.7298

MOIW-070 Pedestrian footbridge over freeway, concrete

24/01/2022

CM 6190521.5798 305413.7298

MOIW-070 Pedestrian footbridge over freeway, concrete

24/01/2022

CM 6190521.5798 305413.7298

MOIW-070 Pedestrian footbridge over freeway, concrete

24/01/2022

CM 6190521.5798 305413.7298

MOIW-070 Pedestrian footbridge over freeway, concrete

24/01/2022

CM 6190521.5798 305413.7298

MOIW-071 Cobbles to boulders in ground, possible fill

24/01/2022

CC 6191015.6694 305384.7589

MOIW-071 Cobbles to boulders in ground, possible fill

24/01/2022

CC 6191015.6694 305384.7589

MOIW-072 In-ground tanks, likely water, pumphouse

24/01/2022

CC 6190977.5256 305365.1595

MOIW-072 In-ground tanks, likely water, pumphouse

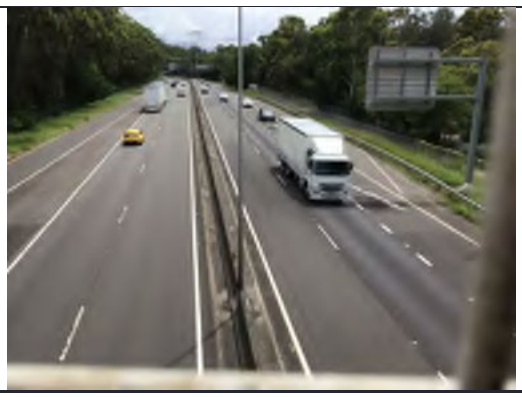
24/01/2022

CC 6190977.5256 305365.1595

MOIW-073 Freeway north and south from pedestrian footbridge

24/01/2022

CM 6190514.8308 305454.5449



MOIW-073 Freeway north and south from pedestrian footbridge

24/01/2022

CM 6190514.8308 305454.5449

MOIW-073 Freeway north and south from pedestrian footbridge

24/01/2022

CM 6190514.8308 305454.5449

MOIW-073 Freeway north and south from pedestrian footbridge

24/01/2022

CM 6190514.8308 305454.5449

MOIW-073 Freeway north and south from pedestrian footbridge

24/01/2022

CM 6190514.8308 305454.5449

MOIW-073 Freeway north and south from pedestrian footbridge

24/01/2022

CM 6190514.8308 305454.5449

MOIW-074 Stormwater drain, metal grate on university ring road

24/01/2022

CM 6190531.9424 305389.906

MOIW-074 Stormwater drain, metal grate on university ring road

24/01/2022

CM 6190531.9424 305389.906

MOIW-074 Stormwater drain, metal grate on university ring road

24/01/2022

CM 6190531.9424 305389.906

MOIW-074 Stormwater drain, metal grate on university ring road

24/01/2022

CM 6190531.9424 305389.906

MOIW-075 Maintenance yard, water (?) tanks, vehicle storage

24/01/2022

CC 6190980.4089 305386.3247

MOIW-075 Maintenance yard, water (?) tanks, vehicle storage

24/01/2022

CC 6190980.4089 305386.3247

MOIW-075 Maintenance yard, water (?) tanks, vehicle storage

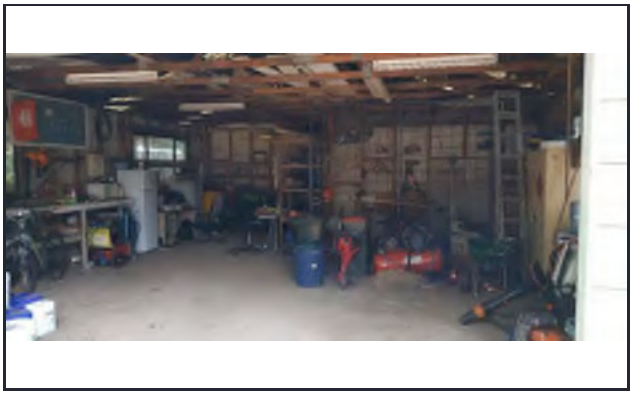
24/01/2022

CC 6190980.4089 305386.3247

MOIW-075 Maintenance yard, water (?) tanks, vehicle storage

24/01/2022

CC 6190980.4089 305386.3247



MOIW-075	Maintenance yard, water (?) tanks, vehicle storage
24/01/2022	
CC	6190980.4089 305386.3247

MOIW-075	Maintenance yard, water (?) tanks, vehicle storage
24/01/2022	
CC	6190980.4089 305386.3247

MOIW-075	Maintenance yard, water (?) tanks, vehicle storage
24/01/2022	
CC	6190980.4089 305386.3247

MOIW-075	Maintenance yard, water (?) tanks, vehicle storage
24/01/2022	
CC	6190980.4089 305386.3247

MOIW-075	Maintenance yard, water (?) tanks, vehicle storage
24/01/2022	
CC	6190980.4089 305386.3247

MOIW-075	Maintenance yard, water (?) tanks, vehicle storage
24/01/2022	
CC	6190980.4089 305386.3247

MOIW-075 Maintenance yard, water (?) tanks, vehicle storage

24/01/2022

CC 6190980.4089 305386.3247

MOIW-075 Maintenance yard, water (?) tanks, vehicle storage

24/01/2022

CC 6190980.4089 305386.3247

MOIW-075 Maintenance yard, water (?) tanks, vehicle storage

24/01/2022

CC 6190980.4089 305386.3247

MOIW-075 Maintenance yard, water (?) tanks, vehicle storage

24/01/2022

CC 6190980.4089 305386.3247

MOIW-075 Maintenance yard, water (?) tanks, vehicle storage

24/01/2022

CC 6190980.4089 305386.3247

MOIW-075 Maintenance yard, water (?) tanks, vehicle storage

24/01/2022

CC 6190980.4089 305386.3247

MOIW-076 Service pits - comms, electricity and sewage

24/01/2022

CM 6190547.6574 305397.1089

MOIW-076 Service pits - comms, electricity and sewage

24/01/2022

CM 6190547.6574 305397.1089

MOIW-076 Service pits - comms, electricity and sewage

24/01/2022

CM 6190547.6574 305397.1089

MOIW-076 Service pits - comms, electricity and sewage

24/01/2022

CM 6190547.6574 305397.1089

MOIW-076 Service pits - comms, electricity and sewage

24/01/2022

CM 6190547.6574 305397.1089

MOIW-076 Service pits - comms, electricity and sewage

24/01/2022

CM 6190547.6574 305397.1089

MOIW-077 Fill platform

24/01/2022

CC 6191048.4276 305337.2487

MOIW-077 Fill platform

24/01/2022

CC 6191048.4276 305337.2487

MOIW-078 Mowed and overgrown grass, shrubs, trees

24/01/2022

CM 6190565.29 305426.6421

MOIW-078 Mowed and overgrown grass, shrubs, trees

24/01/2022

CM 6190565.29 305426.6421

MOIW-078 Mowed and overgrown grass, shrubs, trees

24/01/2022

CM 6190565.29 305426.6421

MOIW-078 Mowed and overgrown grass, shrubs, trees

24/01/2022

CM 6190565.29 305426.6421

MOIW-078 Mowed and overgrown grass, shrubs, trees

24/01/2022

CM 6190565.29 305426.6421

MOIW-078 Mowed and overgrown grass, shrubs, trees

24/01/2022

CM 6190565.29 305426.6421

MOIW-078 Mowed and overgrown grass, shrubs, trees

24/01/2022

CM 6190565.29 305426.6421

MOIW-078 Mowed and overgrown grass, shrubs, trees

24/01/2022

CM 6190565.29 305426.6421

MOIW-078 Mowed and overgrown grass, shrubs, trees

24/01/2022

CM 6190565.29 305426.6421

MOIW-078 Mowed and overgrown grass, shrubs, trees

24/01/2022

CM 6190565.29 305426.6421

MOIW-078 Mowed and overgrown grass, shrubs, trees

24/01/2022

CM 6190565.29 305426.6421

MOIW-078 Mowed and overgrown grass, shrubs, trees

24/01/2022

CM 6190565.29 305426.6421

MOIW-079 Electricity and sewage service pits

24/01/2022

CM 6190615.0052 305434.5765

MOIW-079 Electricity and sewage service pits

24/01/2022

CM 6190615.0052 305434.5765

MOIW-079 Electricity and sewage service pits

24/01/2022

CM 6190615.0052 305434.5765

MOIW-080 Culvert, filled creek crossing

24/01/2022

CC 6191091.1725 305240.0361

MOIW-081 Stormwater drain, metal grate on Ring Road

24/01/2022

CM 6190672.4676 305435.6118

MOIW-081 Stormwater drain, metal grate on Ring Road

24/01/2022

CM 6190672.4676 305435.6118

MOIW-081 Stormwater drain, metal grate on Ring Road

24/01/2022

CM 6190672.4676 305435.6118

MOIW-081 Stormwater drain, metal grate on Ring Road

24/01/2022

CM 6190672.4676 305435.6118

MOIW-082 Fill embankment and drain culvert, some concrete blocks visible

24/01/2022

CC 6191090.9884 305231.6737

MOIW-082 Fill embankment and drain culvert, some concrete blocks visible

24/01/2022

CC 6191090.9884 305231.6737

MOIW-082 Fill embankment and drain culvert, some concrete blocks visible

24/01/2022

CC 6191090.9884 305231.6737

MOIW-083 Stormwater drain, metal grate of Ring Road

24/01/2022

CM 6190722.4904 305443.8097

MOIW-083 Stormwater drain, metal grate of Ring Road

24/01/2022

CM 6190722.4904 305443.8097

MOIW-083 Stormwater drain, metal grate of Ring Road

24/01/2022

CM 6190722.4904 305443.8097

MOIW-083 Stormwater drain, metal grate of Ring Road

24/01/2022

CM 6190722.4904 305443.8097

MOIW-083 Stormwater drain, metal grate of Ring Road

24/01/2022

CM 6190722.4904 305443.8097

[redacted]

24/01/2022

CM 6190779.9557 305455.437

24/01/2022

CM 6190779.9557 305455.437

[redacted]

24/01/2022

CM 6190779.9557 305455.437

24/01/2022

CC 6191112.7315 305180.2035

MOIW-086 Water tanks

24/01/2022

CC 6191119.3828 305116.5865

MOIW-087 Stormwater drain, metal grate, dirt and gravel path/road

24/01/2022

CM 6190831.8915 305461.0435

MOIW-087 Stormwater drain, metal grate, dirt and gravel path/road

24/01/2022

CM 6190831.8915 305461.0435

MOIW-087 Stormwater drain, metal grate, dirt and gravel path/road

24/01/2022

CM 6190831.8915 305461.0435

MOIW-087 Stormwater drain, metal grate, dirt and gravel path/road

24/01/2022

CM 6190831.8915 305461.0435

MOIW-087 Stormwater drain, metal grate, dirt and gravel path/road

24/01/2022

CM 6190831.8915 305461.0435

MOIW-088 Stormwater drain, metal grate

24/01/2022

CM 6190892.1861 305452.2838

MOIW-088 Stormwater drain, metal grate

24/01/2022

CM 6190892.1861 305452.2838

MOIW-088 Stormwater drain, metal grate

24/01/2022

CM 6190892.1861 305452.2838

MOIW-088 Stormwater drain, metal grate

24/01/2022

CM 6190892.1861 305452.2838

MOIW-089 Asphalt car park, minor cracking and light posts

24/01/2022

CM 6190746.1993 305425.6231

MOIW-089 Asphalt car park, minor cracking and light posts

24/01/2022

CM 6190746.1993 305425.6231

MOIW-089 Asphalt car park, minor cracking and light posts

24/01/2022

CM 6190746.1993 305425.6231

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24/01/2022

CM 6190746.1993 305425.6231

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24/01/2022

CM 6190746.1993 305425.6231

MOIW-089 Asphalt car park, minor cracking and light posts

24/01/2022

CM 6190746.1993 305425.6231

MOIW-089 Asphalt car park, minor cracking and light posts

24/01/2022

CM 6190746.1993 305425.6231

MOIW-090 Underground services, stormwater, sewage, electricity, comms

24/01/2022

CM 6190504.4513 305356.3855

MOIW-090 Underground services, stormwater, sewage, electricity, comms

24/01/2022

CM 6190504.4513 305356.3855

MOIW-090 Underground services, stormwater, sewage, electricity, comms

24/01/2022

CM 6190504.4513 305356.3855

MOIW-090 Underground services, stormwater, sewage, electricity, comms

24/01/2022

CM 6190504.4513 305356.3855

MOIW-090 Underground services, stormwater, sewage, electricity, comms

24/01/2022

CM 6190504.4513 305356.3855

[redacted]

24/01/2022

CM 6190504.4513 305356.3855

[redacted]

24/01/2022

CM 6190504.4513 305356.3855

[redacted]

24/01/2022

CM 6190504.4513 305356.3855

[redacted]

24/01/2022

CM 6190504.4513 305356.3855

[redacted]

24/01/2022

CM 6190504.4513 305356.3855

24/01/2022

CM 6190499.8176 305334.5017

MOIW-090 Underground services, stormwater, sewage, electricity, comms

24/01/2022

CM 6190499.8176 305334.5017

MOIW-090 Underground services, stormwater, sewage, electricity, comms

24/01/2022

CM 6190499.8176 305334.5017

MOIW-090 Underground services, stormwater, sewage, electricity, comms

24/01/2022

CM 6190499.8176 305334.5017

MOIW-090 Underground services, stormwater, sewage, electricity, comms

24/01/2022

CM 6190499.8176 305334.5017

MOIW-090 Underground services, stormwater, sewage, electricity, comms

24/01/2022

CM 6190499.8176 305334.5017

MOIW-092 Possible fly tipping area

24/01/2022

CC 6191295.0954 304557.6822

[redacted]

24/01/2022

CM/ED 6191214.7576 305468.3057

24/01/2022

CM/ED 6191214.7576 305468.3057

MOIW-093 Topography - on crest, Mt Ousley cutting sloping east

24/01/2022

CM/ED 6191214.7576 305468.3057

MOIW-093 Topography - on crest, Mt Ousley cutting sloping east

24/01/2022

CM/ED 6191214.7576 305468.3057

MOIW-094 Services - water hydrant, light pole, electrical box

24/01/2022

CM /ED 6191214.6334 305472.8945

MOIW-094 Services - water hydrant, light pole, electrical box

24/01/2022

CM /ED 6191214.6334 305472.8945

MOIW-094 Services - water hydrant, light pole, electrical box

24/01/2022

CM /ED 6191214.6334 305472.8945

MOIW-094 Services - water hydrant, light pole, electrical box

24/01/2022

CM /ED 6191214.6334 305472.8945

MOIW-095 Motorway noise barrier, overgrown, no obvious tipping

24/01/2022

CC 6191344.0465 304913.3274

MOIW-095 Motorway noise barrier, overgrown, no obvious tipping

24/01/2022

CC 6191344.0465 304913.3274

MOIW-095 Motorway noise barrier, overgrown, no obvious tipping

24/01/2022

CC 6191344.0465 304913.3274

MOIW-095 Motorway noise barrier, overgrown, no obvious tipping

24/01/2022

CC 6191344.0465 304913.3274

MOIW-095 Motorway noise barrier, overgrown, no obvious tipping

24/01/2022

CC 6191344.0465 304913.3274

MOIW-096 Asphalt pieces and stockpile

24/01/2022

CM/ED 6191231.6614 305427.038

MOIW-096 Asphalt pieces and stockpile

24/01/2022

CM/ED 6191231.6614 305427.038

MOIW-096 Asphalt pieces and stockpile

24/01/2022

CM/ED 6191231.6614 305427.038

MOIW-096 Asphalt pieces and stockpile

24/01/2022

CM/ED 6191231.6614 305427.038

MOIW-096 Asphalt pieces and stockpile

24/01/2022

CM/ED 6191231.6614 305427.038

MOIW-096 Asphalt pieces and stockpile

24/01/2022

CM/ED 6191231.6614 305427.038

MOIW-097 Squares of plywood, soft plastic

24/01/2022

CM/ED 6191216.8103 305450.1997

MOIW-097 Squares of plywood, soft plastic

24/01/2022

CM/ED 6191216.8103 305450.1997

MOIW-097 Squares of plywood, soft plastic

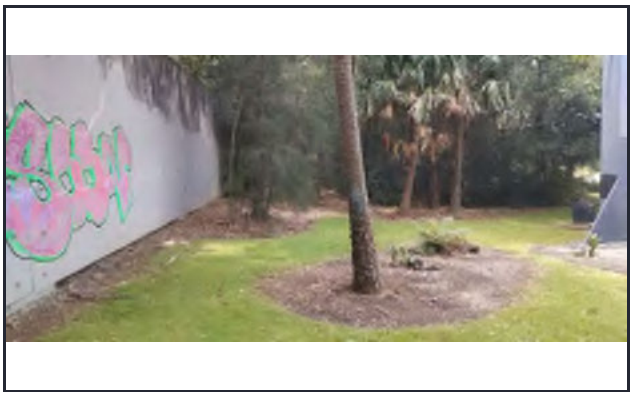
24/01/2022

CM/ED 6191216.8103 305450.1997

MOIW-098 Landscaped area, adjacent truck run off

24/01/2022

CC 6191337.3894 304998.1708



MOIW-098 Landscaped area, adjacent truck run off

24/01/2022

CC 6191337.3894 304998.1708

MOIW-098 Landscaped area, adjacent truck run off

24/01/2022

CC 6191337.3894 304998.1708

MOIW-099 Monitoring well, appears serviceable, unlocked

24/01/2022

CC 6191345.9458 304985.1507

MOIW-099 Monitoring well, appears serviceable, unlocked

24/01/2022

CC 6191345.9458 304985.1507

MOIW-100 Exposed bedrock - sandstone on ridge, red grey

24/01/2022

CM/ED 6191209.2478 305442.132

MOIW-100

Exposed bedrock - sandstone on ridge, red grey

24/01/2022

CM/ED 6191209.2478 305442.132

MOIW-100

Exposed bedrock - sandstone on ridge, red grey

24/01/2022

CM/ED 6191209.2478 305442.132

MOIW-100

Exposed bedrock - sandstone on ridge, red grey

24/01/2022

CM/ED 6191209.2478 305442.132

MOIW-100

Exposed bedrock - sandstone on ridge, red grey

24/01/2022

CM/ED 6191209.2478 305442.132

MOIW-100

Exposed bedrock - sandstone on ridge, red grey

24/01/2022

CM/ED 6191209.2478 305442.132

MOIW-101

Truck parked up, gravel access track, dead ends, some litter, no evidence of recent bulk tipping

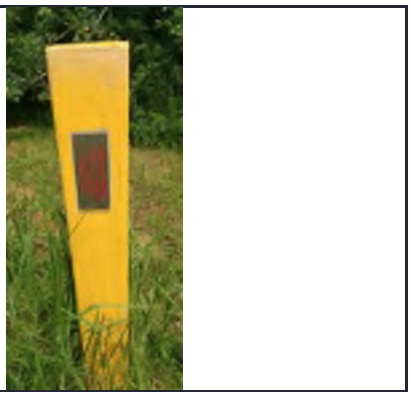
24/01/2022

CC 6191379.2393 305118.1535

MOIW-101 Truck parked up, gravel access track, dead ends, some litter, no evidence of recent bulk tipping

24/01/2022

CC 6191379.2393 305118.1535



MOIW-101 Truck parked up, gravel access track, dead ends, some litter, no evidence of recent bulk tipping

24/01/2022

CC 6191379.2393 305118.1535

MOIW-102 Mound of fill, overgrown with grass adjacent to cutting

24/01/2022

CM/ED 6191229.1382 305395.252

MOIW-102 Mound of fill, overgrown with grass adjacent to cutting

24/01/2022

CM/ED 6191229.1382 305395.252

MOIW-103 Rubbish - rubber mat

24/01/2022

CM/ED 6191214.949 305395.5886

MOIW-103 Rubbish - rubber mat

24/01/2022

CM/ED 6191214.949 305395.5886

MOIW-104 Surface soils - silty sand topsoil

24/01/2022

CM/ED 6191220.3687 305389.0075

MOIW-104 Surface soils - silty sand topsoil

24/01/2022

CM/ED 6191220.3687 305389.0075

MOIW-105 Brick and loose dirt, possible aged tipping

24/01/2022

CC 6191385.274 305172.9089

MOIW-105 Brick and loose dirt, possible aged tipping

24/01/2022

CC 6191385.274 305172.9089

MOIW-106 Dense, overgrown, healthy vegetation

24/01/2022

CM/ED 6191222.0019 305349.3345

MOIW-106 Dense, overgrown, healthy vegetation

24/01/2022

CM/ED 6191222.0019 305349.3345

MOIW-106 Dense, overgrown, healthy vegetation

24/01/2022

CM/ED 6191222.0019 305349.3345

MOIW-106 Dense, overgrown, healthy vegetation

24/01/2022

CM/ED 6191222.0019 305349.3345

MOIW-107 Truck run off, built on fill, batters north and south side

24/01/2022

CC 6191338.7626 305171.2187

MOIW-107 Truck run off, built on fill, batters north and south side

24/01/2022

CC 6191338.7626 305171.2187

MOIW-108 Topography sloping south to south east

24/01/2022

CM/ED 6191187.1764 305460.5782

MOIW-108 Topography sloping south to south east

24/01/2022

CM/ED 6191187.1764 305460.5782

MOIW-108 Topography sloping south to south east

24/01/2022

CM/ED 6191187.1764 305460.5782

MOIW-109 Mountain bike track

24/01/2022

CC 6191355.7108 305232.7344

MOIW-109 Mountain bike track

24/01/2022

CC 6191355.7108 305232.7344

MOIW-110 Mountain bike track, mounds appear built from locally won material

24/01/2022

CC 6191338.8314 305270.2295

MOIW-110 Mountain bike track, mounds appear built from locally won material

24/01/2022

CC 6191338.8314 305270.2295

MOIW-110 Mountain bike track, mounds appear built from locally won material

24/01/2022

CC 6191338.8314 305270.2295

MOIW-111 Ramp and tipped chemical drums

24/01/2022

CC 6191321.7309 305290.4349

MOIW-111 Ramp and tipped chemical drums

24/01/2022

CC 6191321.7309 305290.4349

MOIW-111 Ramp and tipped chemical drums

24/01/2022

CC 6191321.7309 305290.4349

MOIW-112 End of track

24/01/2022

CC 6191314.9599 305308.1098

MOIW-112 End of track

24/01/2022

CC 6191314.9599 305308.1098

MOIW-113 Exposed fill soil with asphalt gravel

24/01/2022

CM/ED 6191098.3861 305512.6178

MOIW-113 Exposed fill soil with asphalt gravel

24/01/2022

CM/ED 6191098.3861 305512.6178

MOIW-113 Exposed fill soil with asphalt gravel

24/01/2022

CM/ED 6191098.3861 305512.6178

MOIW-114 Tipped road barricades

24/01/2022

CC 6191331.054 305328.69

MOIW-115 Two concrete slabs, potential service

24/01/2022

CM ED 6191085.1006 305520.6658

MOIW-115 Two concrete slabs, potential service

24/01/2022

CM ED 6191085.1006 305520.6658

MOIW-116 Evidence of aged tipping and gravel emplacement, no visible hazmat

24/01/2022

CC 6191326.8476 305369.8982

MOIW-116 Evidence of aged tipping and gravel emplacement, no visible hazmat

24/01/2022

CC 6191326.8476 305369.8982

MOIW-116 Evidence of aged tipping and gravel emplacement, no visible hazmat

24/01/2022

CC 6191326.8476 305369.8982

MOIW-117 Energy cable marker

24/01/2022

CM/ED 6191034.3216 305575.3801

MOIW-117 Energy cable marker

24/01/2022

CM/ED 6191034.3216 305575.3801

MOIW-117 Energy cable marker

24/01/2022

CM/ED 6191034.3216 305575.3801

MOIW-117 Energy cable marker

24/01/2022

CM/ED 6191034.3216 305575.3801

MOIW-118 Energy service pit and cable marker

24/01/2022

CM/ED 6190969.8819 305568.9081

MOIW-118 Energy service pit and cable marker

24/01/2022

CM/ED 6190969.8819 305568.9081

MOIW-118 Energy service pit and cable marker

24/01/2022

CM/ED 6190969.8819 305568.9081

MOIW-118 Energy service pit and cable marker

24/01/2022

CM/ED 6190969.8819 305568.9081

MOIW-119 Substation

24/01/2022

CC 6191244.7048 305631.1465

MOIW-120 Mt Ousley road embankment, bricks, concrete and asphalt fragments visible at surface

24/01/2022

CC 6191249.8478 305589.835

MOIW-120 Mt Ousley road embankment, bricks, concrete and asphalt fragments visible at surface

24/01/2022

CC 6191249.8478 305589.835

MOIW-121 Electrical high voltage green substation

24/01/2022

CM/ED 6190916.4951 305535.6715

MOIW-121 Electrical high voltage green substation

24/01/2022

CM/ED 6190916.4951 305535.6715

MOIW-122 Top of embankment, no visible evidence of filling

24/01/2022

CC 6191268.8901 305407.9413

MOIW-122 Top of embankment, no visible evidence of filling

24/01/2022

CC 6191268.8901 305407.9413

MOIW-122 Top of embankment, no visible evidence of filling

24/01/2022

CC 6191268.8901 305407.9413

MOIW-123 Monitoring well, locked, bh225

24/01/2022

CC 6191287.078 305360.8156

MOIW-124 Exposed soils with possible hc spill on soils, black, sheen

24/01/2022

CM/ED 6191038.6675 305534.9485

MOIW-124 Exposed soils with possible hc spill on soils, black, sheen

24/01/2022

CM/ED 6191038.6675 305534.9485

MOIW-124 Exposed soils with possible hc spill on soils, black, sheen

24/01/2022

CM/ED 6191038.6675 305534.9485

MOIW-124 Exposed soils with possible hc spill on soils, black, sheen

24/01/2022

CM/ED 6191038.6675 305534.9485

MOIW-125 Mt Ousley carpark, culvert, likely fill east end

24/01/2022

CC 6191289.6096 305278.0474

MOIW-125 Mt Ousley carpark, culvert, likely fill east end

24/01/2022

CC 6191289.6096 305278.0474

MOIW-125 Mt Ousley carpark, culvert, likely fill east end

24/01/2022

CC 6191289.6096 305278.0474

MOIW-126 Metal highway access gate, sewage man hole, power service

24/01/2022

CM/ED 6191062.5878 305467.1805

MOIW-126 Metal highway access gate, sewage man hole, power service

24/01/2022

CM/ED 6191062.5878 305467.1805

MOIW-126 Metal highway access gate, sewage man hole, power service

24/01/2022

CM/ED 6191062.5878 305467.1805

MOIW-126 Metal highway access gate, sewage man hole, power service

24/01/2022

CM/ED 6191062.5878 305467.1805

MOIW-127 Old tennis court, endeavour energy markers

24/01/2022

CC 6190488.8871 305493.8163

MOIW-128 Culvert, downstream

24/01/2022

CC 6190441.6107 305467.1849

MOIW-128 Culvert, downstream

24/01/2022

CC 6190441.6107 305467.1849

MOIW-129 Sawdust pile

24/01/2022

CC 6190429.2284 305477.5857

MOIW-130 Two blue metal shipping containers

24/01/2022

CM/ED 6190905.6795 305564.898

MOIW-131 Creekline

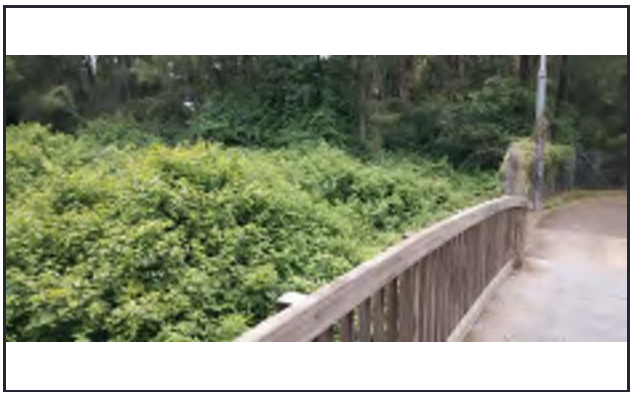
24/01/2022

CC 6190318.596 305533.8224

MOIW-131 Creekline

24/01/2022

CC 6190318.596 305533.8224



MOIW-131 Creekline

24/01/2022

CC 6190318.596 305533.8224

MOIW-132 Tafe works area

24/01/2022

CC 6190308.4189 305589.1843

MOIW-132 Tafe works area

24/01/2022

CC 6190308.4189 305589.1843

MOIW-133 New and old fire hydrant

24/01/2022

CM/ED 6190903.2593 305566.1434

MOIW-133 New and old fire hydrant

24/01/2022

CM/ED 6190903.2593 305566.1434

MOIW-134 Metal sewage vent in concrete handstand

24/01/2022

CM/ED 6190882.8883 305561.5655

MOIW-134 Metal sewage vent in concrete handstand

24/01/2022

CM/ED 6190882.8883 305561.5655

MOIW-135 Waste and culvert, possible fill or cut to establish levels

24/01/2022

CC 6190318.4047 305726.8869

MOIW-135 Waste and culvert, possible fill or cut to establish levels

24/01/2022

CC 6190318.4047 305726.8869

MOIW-136 Chemical and gas lockup storage units

24/01/2022

CM/ED 6190849.5717 305568.1735

MOIW-136 Chemical and gas lockup storage units

24/01/2022

CM/ED 6190849.5717 305568.1735

MOIW-136 Chemical and gas lockup storage units

24/01/2022

CM/ED 6190849.5717 305568.1735

MOIW-137 Culvert

24/01/2022

CC 6190213.347 305627.4482

MOIW-138 Two small piles of wood chips and mulch

24/01/2022

CM/ED 6190785.1837 305520.2971

MOIW-138 Two small piles of wood chips and mulch

24/01/2022

CM/ED 6190785.1837 305520.2971

MOIW-139 Metal water tap attached to wooden post in ground

24/01/2022

CM/ED 6190720.5667 305513.3669

MOIW-139 Metal water tap attached to wooden post in ground

24/01/2022

CM/ED 6190720.5667 305513.3669

MOIW-140 Fill embankment for overpass

24/01/2022

CC 6190275.4005 305487.9362

MOIW-140 Fill embankment for overpass

24/01/2022

CC 6190275.4005 305487.9362

MOIW-140 Fill embankment for overpass

24/01/2022

CC 6190275.4005 305487.9362

MOIW-141 Stockpile of mulch with leaves

24/01/2022

CM/ED 6190699.4189 305510.7789

MOIW-142 Stormwater drain, two metal grates on road

24/01/2022

CM/ED 6190629.2918 305527.4831

MOIW-142 Stormwater drain, two metal grates on road

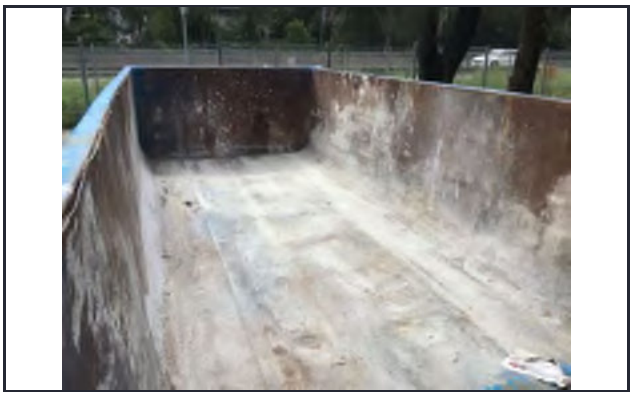
24/01/2022

CM/ED 6190629.2918 305527.4831

MOIW-142 Stormwater drain, two metal grates on road

24/01/2022

CM/ED 6190629.2918 305527.4831



MOIW-143 Blue metal skip bin, no rubbish inside

24/01/2022

CM/ED 6190612.5853 305501.083

MOIW-143 Blue metal skip bin, no rubbish inside

24/01/2022

CM/ED 6190612.5853 305501.083

MOIW-144 Water pump

24/01/2022

CM/ED 6190501.9135 305490.9136

APPENDIX

C

LOTSEARCH REPORT

Cardno

now

Stantec

LOTSEARCH

LOTSEARCH ENVIRO PROFESSIONAL

Date: 11 Jan 2022 14:05:31

Reference: LS028050 EP

Address: Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

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 Finance, Services & Innovation	04/01/2022	04/01/2022	Quarterly	-	-	-	-
Topographic Data	NSW Department of Finance, Services & Innovation	25/06/2019	25/06/2019	As required	-	-	-	-
List of NSW contaminated sites notified to EPA	Environment Protection Authority	10/12/2021	09/12/2021	Monthly	1000m	0	0	4
Contaminated Land Records of Notice	Environment Protection Authority	06/12/2021	06/12/2021	Monthly	1000m	0	0	1
Former Gasworks	Environment Protection Authority	07/01/2022	11/10/2017	Quarterly	1000m	0	0	1
National Waste Management Facilities Database	Geoscience Australia	12/05/2021	07/03/2017	Annually	1000m	0	0	0
National Liquid Fuel Facilities	Geoscience Australia	15/02/2021	13/07/2012	Annually	1000m	0	0	3
EPA PFAS Investigation Program	Environment Protection Authority	14/12/2021	14/07/2021	Monthly	2000m	0	0	0
Defence PFAS Investigation & Management Program - Investigation Sites	Department of Defence	29/10/2021	29/10/2021	Monthly	2000m	0	0	0
Defence PFAS Investigation & Management Program - Management Sites	Department of Defence	29/10/2021	29/10/2021	Monthly	2000m	0	0	0
Airservices Australia National PFAS Management Program	Airservices Australia	06/01/2022	06/01/2022	Monthly	2000m	0	0	0
Defence 3 Year Regional Contamination Investigation Program	Department of Defence	06/01/2022	06/01/2022	Quarterly	2000m	0	0	0
EPA Other Sites with Contamination Issues	Environment Protection Authority	02/02/2021	13/12/2018	Annually	1000m	0	0	0
Licensed Activities under the POEO Act 1997	Environment Protection Authority	21/12/2021	21/12/2021	Monthly	1000m	0	0	1
Delicensed POEO Activities still regulated by the EPA	Environment Protection Authority	21/12/2021	21/12/2021	Monthly	1000m	0	0	1
Former POEO Licensed Activities now revoked or surrendered	Environment Protection Authority	21/12/2021	21/12/2021	Monthly	1000m	3	3	4
UBD Business Directories (Premise & Intersection Matches)	Hardie Grant			Not required	150m	2	12	30
UBD Business Directories (Road & Area Matches)	Hardie Grant			Not required	150m	-	21	41
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Premise & Intersection Matches)	Hardie Grant			Not required	500m	0	0	13
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Road & Area Matches)	Hardie Grant			Not required	500m	-	0	34
Points of Interest	NSW Department of Finance, Services & Innovation	19/08/2021	19/08/2021	Quarterly	1000m	2	12	95
Tanks (Areas)	NSW Department of Customer Service - Spatial Services	19/08/2021	19/08/2021	Quarterly	1000m	0	0	1
Tanks (Points)	NSW Department of Customer Service - Spatial Services	19/08/2021	19/08/2021	Quarterly	1000m	2	2	2
Major Easements	NSW Department of Finance, Services & Innovation	19/08/2021	19/08/2021	Quarterly	1000m	0	2	8
State Forest	Forestry Corporation of NSW	25/02/2021	14/02/2021	Annually	1000m	0	0	0
NSW National Parks and Wildlife Service Reserves	NSW Office of Environment & Heritage	22/01/2021	11/12/2020	Annually	1000m	0	0	1
Hydrogeology Map of Australia	Commonwealth of Australia (Geoscience Australia)	08/10/2014	17/03/2000	As required	1000m	1	1	1
Temporary Water Restriction (Botany Sands Groundwater Source) Order 2018	NSW Department of Planning, Industry and Environment	26/10/2020	21/02/2018	Annually	1000m	0	0	0
Groundwater Boreholes	NSW Dept. of Primary Industries - Water NSW; Commonwealth of Australia (Bureau of Meteorology)	24/07/2018	23/07/2018	Annually	2000m	0	0	36

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features On-site	No. Features within 100m	No. Features within Buffer
Geological Units 1:100,000	NSW Department of Planning, Industry and Environment	20/08/2014		Annually	1000m	4	5	8
Geological Structures 1:100,000	NSW Department of Planning, Industry and Environment	20/08/2014		Annually	1000m	1	1	2
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	2	2	4
Soil Landscapes of Central and Eastern NSW	NSW Department of Planning, Industry and Environment	14/10/2020	27/07/2020	Annually	1000m	2	3	4
Environmental Planning Instrument Acid Sulfate Soils	NSW Department of Planning, Industry and Environment	15/11/2021	05/11/2021	Monthly	500m	1	-	-
Atlas of Australian Acid Sulfate Soils	CSIRO	19/01/2017	21/02/2013	As required	1000m	2	2	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	19/08/2021	05/08/2021	Quarterly	1000m	0	0	0
Current Mining Titles	NSW Department of Industry	07/01/2022	07/01/2022	Monthly	1000m	0	0	0
Mining Title Applications	NSW Department of Industry	07/01/2022	07/01/2022	Monthly	1000m	0	0	0
Historic Mining Titles	NSW Department of Industry	07/01/2022	07/01/2022	Monthly	1000m	8	8	8
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	15/11/2021	05/11/2021	Monthly	1000m	6	17	108
Commonwealth Heritage List	Australian Government Department of the Agriculture, Water and the Environment	18/05/2021	20/11/2019	Annually	1000m	0	0	0
National Heritage List	Australian Government Department of the Agriculture, Water and the Environment	18/05/2021	20/11/2019	Annually	1000m	1	1	1
State Heritage Register - Curtilages	NSW Department of Planning, Industry and Environment	19/08/2021	25/06/2021	Quarterly	1000m	0	0	1
Environmental Planning Instrument Local Heritage	NSW Department of Planning, Industry and Environment	15/11/2021	05/11/2021	Monthly	1000m	0	1	17
Bush Fire Prone Land	NSW Rural Fire Service	10/01/2022	08/12/2021	Weekly	1000m	2	2	2
Native Vegetation of the Illawarra Escarpment & Coastal Plain	NSW Office of Environment & Heritage	20/05/2015	04/08/2011	Unknown	1000m	6	8	46
Ramsar Wetlands of Australia	Australian Government Department of Agriculture, Water and the Environment	24/02/2021	19/03/2020	Annually	1000m	0	0	0
Groundwater Dependent Ecosystems	Bureau of Meteorology	14/08/2017	15/05/2017	Annually	1000m	4	4	6
Inflow Dependent Ecosystems Likelihood	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000m	8	8	14
NSW BioNet Species Sightings	NSW Office of Environment & Heritage	10/01/2022	10/01/2022	Weekly	10000m	-	-	-

Site Diagram

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

Legend

- Site Boundary
- Internal Parcel Boundaries

Total Area: 391963m²

Total Perimeter: 6.93km

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.

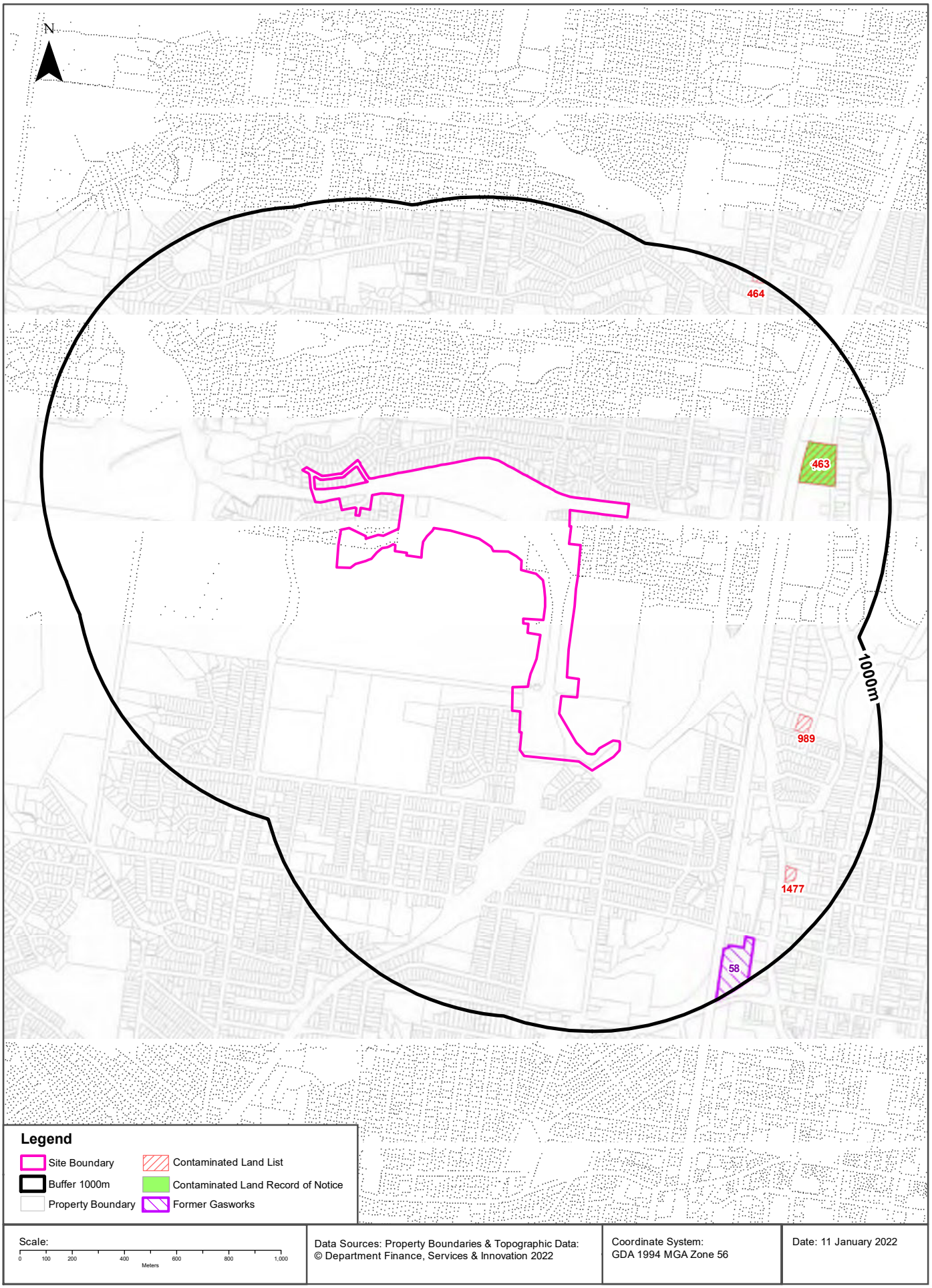
Parcels that make up a small percentage of the total site area have not been labelled for increased legibility.

Coordinate System:
GDA 1994 MGA Zone 56

Date: 11 January 2022

Contaminated Land

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500



Contaminated Land

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

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
463	Caltex Fuel Depot and adjoining land	46 Montague Street	Fairy Meadow	Service Station	Contamination formerly regulated under the CLM Act	Current EPA List	Premise Match	653m	East
989	Former Mobil Depot	122-126 Montague STREET	North Wollongong	Other Petroleum	Regulation under CLM Act not required	Current EPA List	Premise Match	669m	South East
1477	Caltex Service Station	9 Flinders Street	Wollongong	Service Station	Regulation under CLM Act not required	Current EPA List	Premise Match	773m	South East
464	Deynal (Seeman)	51-59 Princes Highway	Fairy Meadow	Service Station	Regulation under CLM Act not required	Current EPA List	Premise Match	976m	North East

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

Contaminated Land

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

Contaminated Land: Records of Notice

Record of Notices within the dataset buffer:

Map Id	Name	Address	Suburb	Notices	Area No	Location Confidence	Distance	Direction
113	Caltex Fuel Depot and adjoining land	46 Montague Street	Fairy Meadow	2 former	3363	Premise Match	653m	East

Contaminated Land Records of Notice Data Source: Environment Protection Authority

Former Gasworks

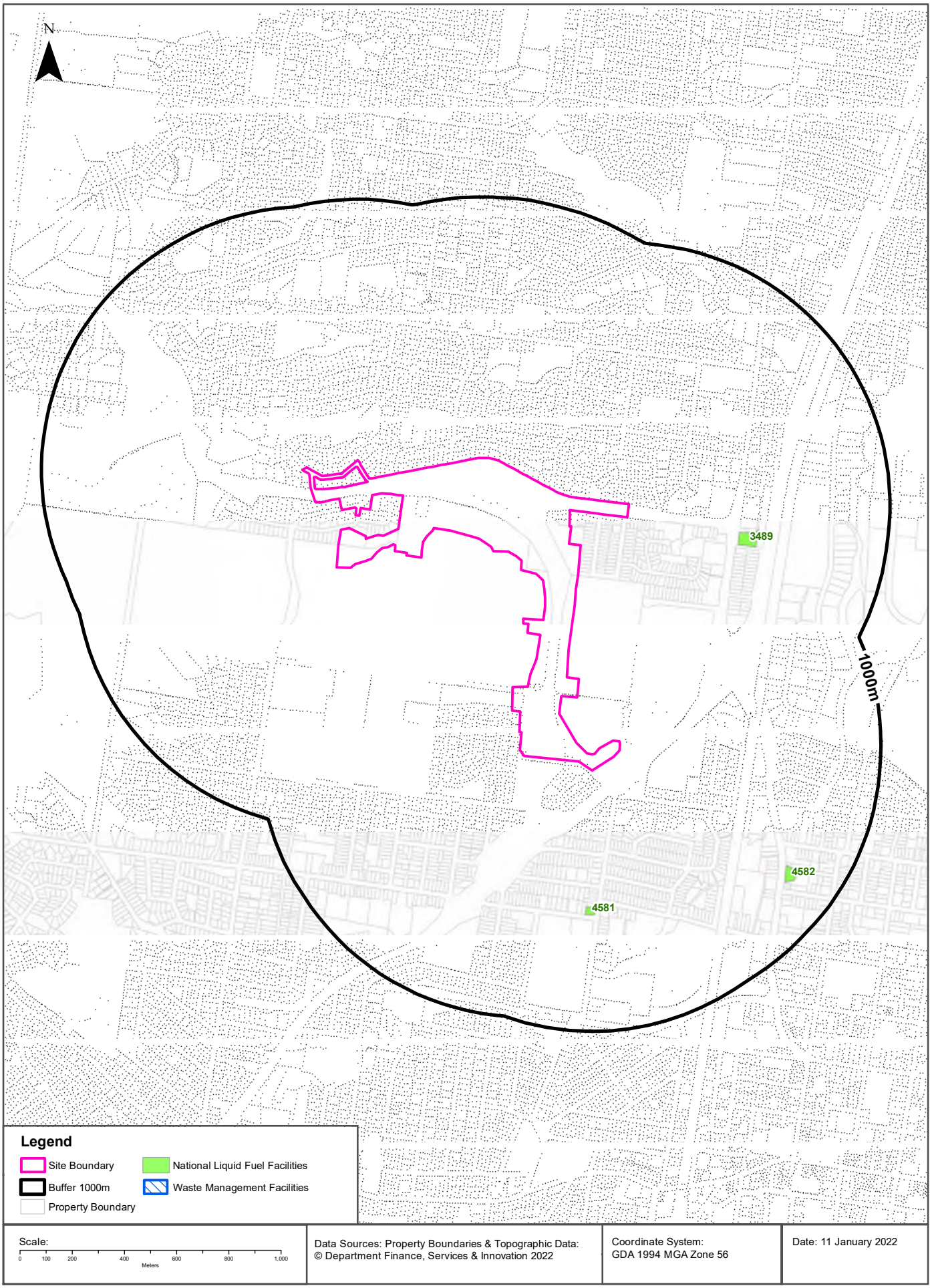
Former Gasworks within the dataset buffer:

Map Id	Location	Council	Further Info	Location Confidence	Distance	Direction
58	Flinders Street, Wollongong	Wollongong City Council	Contact council	Premise Match	846m	South East

Former Gasworks Data Source: Environment Protection Authority

Waste Management & Liquid Fuel Facilities

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500



Waste Management & Liquid Fuel Facilities

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

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
N/A	No records in buffer											

National Liquid Fuel Facilities

National Liquid Fuel Facilties within the dataset buffer:

Map Id	Owner	Name	Address	Suburb	Class	Operational Status	Operator	Revision Date	Loc Conf	Dist	Direction
3489	BP	BP Fairy Meadow	224 Princes Highway	Fairy Meadow	Petrol Station	Operational		25/07/2011	Premise Match	432m	East
4581	Caltex	Caltex Gwynneville	36 Folely Street	Gwynneville	Petrol Station	Operational		25/07/2011	Premise Match	519m	South
4582	Caltex	Caltex Wollongong North	9 Flinders Street	Wollongong	Petrol Station	Operational		25/07/2011	Premise Match	773m	South East

PFAS Investigation & Management Programs

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

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

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

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

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

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

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

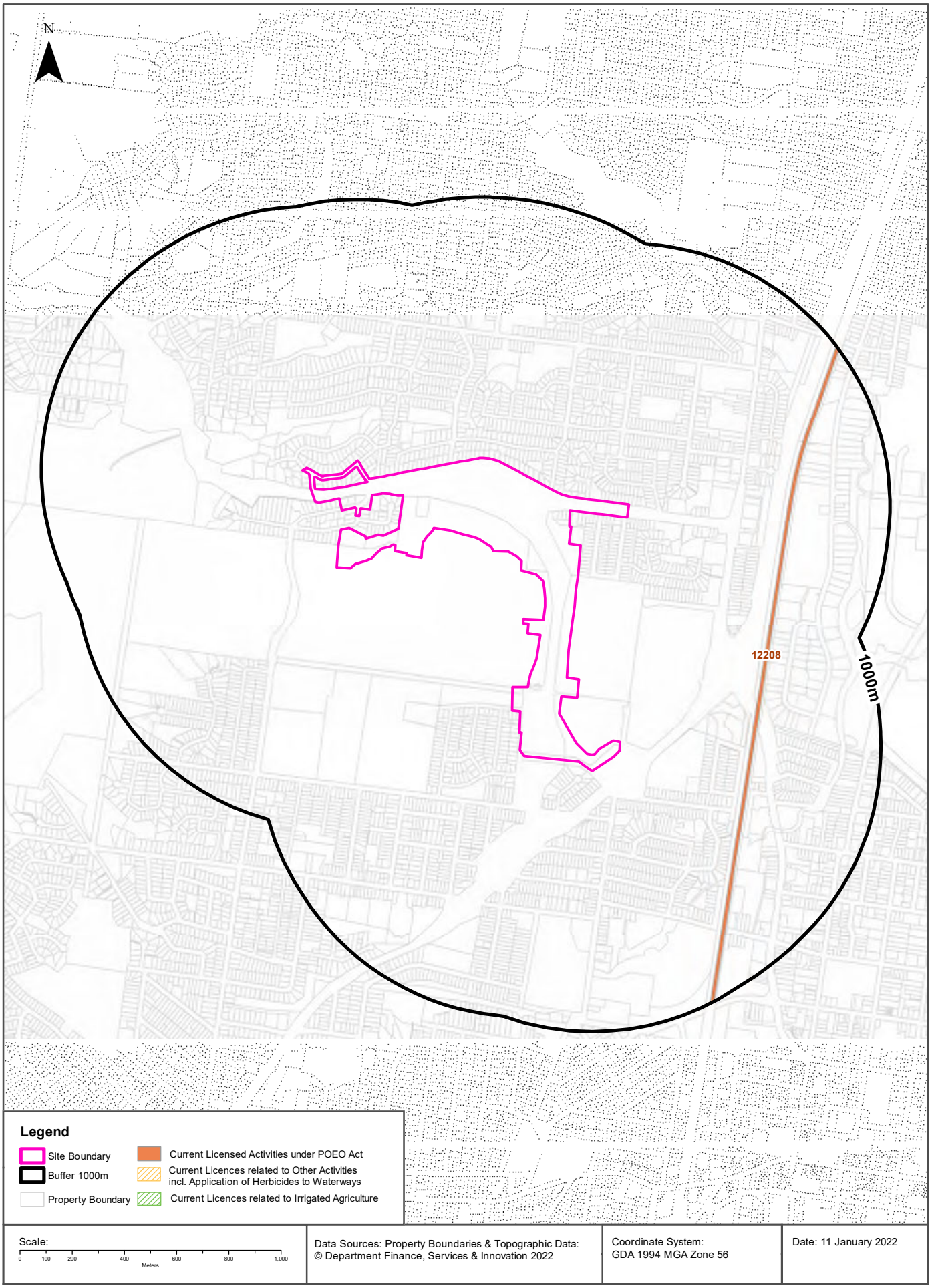
Sites within the dataset buffer:

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

Current EPA Licensed Activities

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500



EPA Activities

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

Licensed Activities under the POEO Act 1997

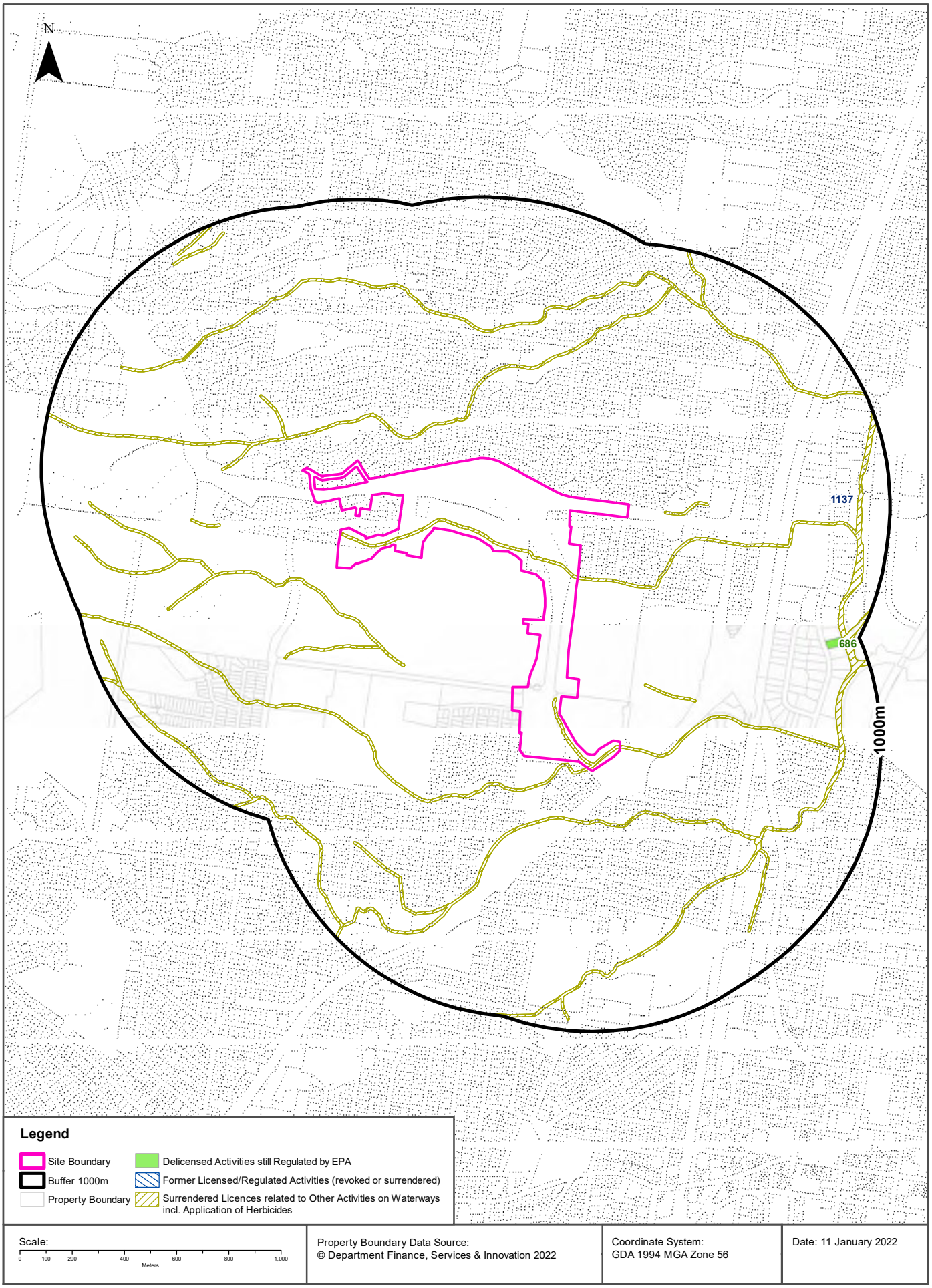
Licensed activities under the Protection of the Environment Operations Act 1997, within the dataset buffer:

EPL	Organisation	Name	Address	Suburb	Activity	Loc Conf	Distance	Direction
12208	SYDNEY TRAINS		SYDNEY TRAINS, HAYMARKET, NSW 1238		Railway systems activities	Network of Features	490m	South East

POEO Licence Data Source: Environment Protection Authority

Delicensed & Former Licensed EPA Activities

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500



EPA Activities

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

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
686	SOUTH COAST EQUIPMENT PTY LTD	SCE PREMIX - Wollongong Plant	101 MONTAGUE STREET	WOLLONGONG NORTH	Concrete works	Premise Match	872m	East

Delicensed Activities Data Source: Environment Protection Authority

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

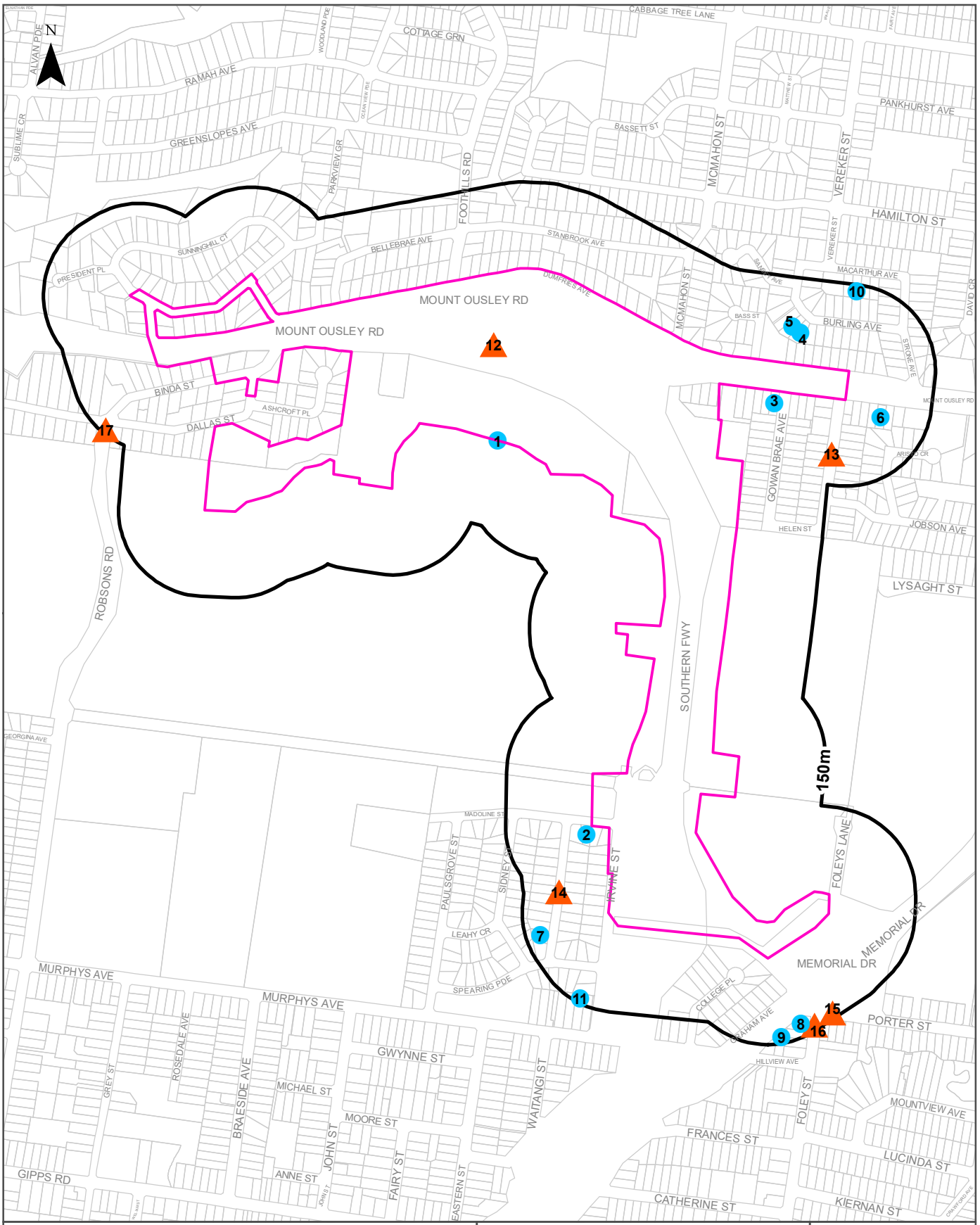
Former Licensed activities under the Protection of the Environment Operations Act 1997, now revoked or surrendered, within the dataset buffer:

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
1137	HANSON CONSTRUCTION MATERIALS PTY LTD	59 MONTAGUE STREET, FAIRY MEADOW, NSW 2519	Surrendered	26/04/2000	Concrete works	Premise Match	786m	East

Former Licensed Activities Data Source: Environment Protection Authority

Historical Business Directories

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500



Legend

- Site Boundary
- Buffer 150m
- Property Boundary
- Business directory records mapped to a specific premise
- Business directory records mapped to a road intersection
- Business directory records mapped to a road corridor
- Business directory records mapped to a general area

Scale: 0 125 250 375 500 Meters

Coordinate System: GDA 1994 MGA Zone 56

Date: 11 January 2022

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

Historical Business Directories

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

Business Directory Records 1950-1991
Premise or Road Intersection Matches

Universal Business Directory records from years 1991, 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
1	SCHOOLS &/OR COLLEGES - PRIVATE &/OR PUBLIC	Wollongong Institute Of Education., Northfields Av North Wollongong	103781	1991	Premise Match	0m	On-site
	SCHOOLS &/OR COLLEGES - PRIVATE &/OR PUBLIC	Wollongong Institute of Education, Northfields Ave., Wollongong North 2500	144732	1982	Premise Match	0m	On-site
2	JOINERY MANUFACTURERS &/OR MERCHANTS.	Jm Joinery., 5 Madolme St Gwynneville	103053	1991	Premise Match	0m	South
3	PAINTERS, PAPERHANGERS & DECORATORS	Perry, F. H., 55 Mt, Ousley Rd., Fairy Meadow	239964	1961	Premise Match	0m	East
4	COLLIERY SUPPLIES	Ray, Ronald I., 17 Burling Ave., Fairy Meadow	561532	1970	Premise Match	37m	North East
	SAWMILLING MACHINERY MFRS. &/OR MERCHANTS	Ray, Ronald I., 17 Burling Ave., Fairy Meadow	567042	1970	Premise Match	37m	North East
	COLLIERY SUPPLIES	Ray, Ronald I., 17 Burling Ave., Fairy Meadow	235322	1961	Premise Match	37m	North East
	SAWMILLING MACHINERY &/OR SUPPLIES	Ray, Ronald I., 17 Burling Ave., Fairy Meadow	240659	1961	Premise Match	37m	North East
5	PAINTERS, PAPERHANGERS & DECORATORS	Cornford, R., 19 Burling Ave., Mt. Ousley	566140	1970	Premise Match	43m	North East
	PAINTERS, PAPERHANGERS & DECORATORS	Cornford R., 19 Burling Ave., Fairy Meadow	239943	1961	Premise Match	43m	North East
6	HAULAGE CONTRACTORS	Vickery, E. G., 37 Mt. Ousley Rd., Fairy Meadow	563829	1970	Premise Match	57m	East
	HAULAGE CONTRACTORS	Vickery, E. G., 37 Mt. Ousley Rd., Fairy Meadow	237698	1961	Premise Match	57m	East
7	PLASTERING CONTRACTORS.	Purss D., 22 Hoskins St Gwynneville	100065	1991	Premise Match	108m	South
	PLASTERING CONTRACTORS	Purss. D., 22 Hoskins St., Gwynneville 2500	144090	1982	Premise Match	108m	South
8	ANTIQUE DEALER	Devine, L., 6 Foleys Rd., Gwynneville	559990	1970	Premise Match	115m	South East
	ANTIQUE RESTORER & REPAIRER	Devine, L., 6 Foleys Rd., Gwynneville	559995	1970	Premise Match	115m	South East
	FRENCH POLISHERS	Devine, L., 6 Foleys Rd., Gwynneville	563086	1970	Premise Match	115m	South East
9	NURSERYMEN	South Coast Nursery, 2 Hillview Ave., Gwynneville	565989	1970	Premise Match	124m	South
	NURSERYMEN	South Coast Nursery, 2 Hillview Ave., Gwynneville	239808	1961	Premise Match	124m	South
10	BUILDERS &/OR BUILDING CONTRACTORS	North G C & J., 5 Macarthur Av Mount Ousley	99536	1991	Premise Match	128m	North East
	BUILDERS &/OR BUILDING CONTRACTORS	North. G. C. & J., 5 Macarthur Ave., Mount Ousley 2519	139315	1982	Premise Match	128m	North East
	BUILDERS &/OR BUILDING CONTRACTORS	North, G. C., 5 MacArthur Ave., Mount Ousley	560690	1970	Premise Match	128m	North East
	BUILDERS &/OR BUILDING CONTRACTORS-M.M.B.A.	North, G. C., 5 Macarthur Ave., Mount Ousley	560618	1970	Premise Match	128m	North East
	BUILDERS & CONTRACTORS	North, G. C., 5 MacArthur Ave., Mount Ousley	234428	1961	Premise Match	128m	North East
11	BUTCHERS-WHOLESALE.	South Coast Wholesale Meats., 4 Murphys Av Gwynneville	99678	1991	Premise Match	132m	South
	BUTCHERS - WHOLESALE	South Coast Wholesale Meats, 4 Murphys Ave., Gwynneville 2500	139579	1982	Premise Match	132m	South

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
11	BUTCHERS-RETAIL	South Coast Wholesale Meats, 4 Murphys Ave., Gwynneville 2500	139552	1982	Premise Match	132m	South
	MIXED BUSINESSES	Davis, E. A., 4 Murphys Ave., Gwynneville	564944	1970	Premise Match	132m	South
	BUTCHERS-RETAIL	Parrish, J., 4 Murphys Ave., Gwynneville	560891	1970	Premise Match	132m	South
	BUTCHERS-RETAIL	Partridge, J., 4 Murphys Ave., Gwynneville	560893	1970	Premise Match	132m	South

Business Directory Records 1950-1991
Road or Area Matches

Universal Business Directory records from years 1991, 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
12	BUILDERS &/OR BUILDING CONTRACTORS-M.M.B.A.	Chapman, E. R., Mt. Ousley Rd., Fairy Meadow	560581	1970	Road Match	0m
	PLUMBERS, GASFITTERS & DRAINLAYERS	Jones, G. E., 34 Mount Ousley Rd., Fairy Meadow	566462	1970	Road Match	0m
	SIGNWRITERS	Scott, C. F., Mt. Ousley Rd., Fairy Meadow	567266	1970	Road Match	0m
	BUILDERS & CONTRACTORS-MASTER	Chapman, E. R., Mt. Ousley Rd., Fairy Meadow	234280	1961	Road Match	0m
	PLUMBERS, GASFITTERS & DRAINLAYERS	G. E. Jones 34 Mt. Ousley Road, Fairy Meadow	240178	1961	Road Match	0m
	BUILDERS & CONTRACTORS-MASTER	Hutchinson, E. A., Mt. Ousley Rd., Fairy Meadow	234296	1961	Road Match	0m
	PLUMBERS, GASFITTERS & DRAINLAYERS	Jones, G. E., 34 Mount Ousley Rd., Fairy Meadow	240201	1961	Road Match	0m
	PAINTERS, PAPERHANGERS & DECORATORS	Scott, C. F., Mt. Ousley Rd., Fairy Meadow	239970	1961	Road Match	0m
	SIGNWRITERS	Scott, C. F., Mt. Ousley Rd., Fairy Meadow	240843	1961	Road Match	0m
	PLUMBERS, GASFITTERS & DRAINLAYERS	Smith, H. A., 40 Mt. Ousley Rd., Fairy Meadow	240216	1961	Road Match	0m
	PAINTERS, PAPERHANGERS & DECORATORS	Perry, F. H., Mount Onsley Rd., Fairy Meadow	190368	1950	Road Match	0m
	WOOD MERCHANTS-COAL &/OR COKE	Vickery, E. G., Mt. Ousley Rd., Fairy Meadow	192327	1950	Road Match	0m
13	BUILDERS AND BUILDING, CONTRACTORS	Jones, W. L., 39 Gaynor Ave., Mount Ousley	185254	1950	Road Match	0m
	BUILDERS AND BUILDING, CONTRACTORS	W. L. Jone., 39 Gaynor Avenue., Mount Ousley	185277	1950	Road Match	0m
14	PLUMBERS SUPPLIES	Fletcher Bros., 300 Hoskins St. Wollongong 2500	566493	1970	Road Match	37m
	PLUMBERS, GASFITTERS & DRAINLAYERS	Fletcher Bros., 300 Hoskins St. Wollongong 2500	566452	1970	Road Match	37m
	HARDWARE DEALERS & IRONMONGERS	Fietcher Bros., 300 Hoskins St., Wollongong	237593	1961	Road Match	37m
	PLUMBERS' SUPPLIES	Fietcher Bros., 300 Hoskins St., Wollongong	240234	1961	Road Match	37m
	INSURANCE AGENTS	Fletcher Bros., 300 Hoskins St., Wollongong	237849	1961	Road Match	37m
	JOINERY MANUFACTURERS	Fletcher Bros., 300 Hoskins St., Wollongong	238045	1961	Road Match	37m
	PLUMBERS, GASFITTERS & DRAINLAYERS	Fletcher Bros., 300 Hoskins St., Wollongong	240194	1961	Road Match	37m
15	MOTOR OIL &/OR SPIRIT DEPOTS	Esso Australia Ltd., Porter St., North Wollongong 2500	143399	1982	Road Match	123m
	MOTOR OIL & SPIRIT DEPOTS	Esso Standard Oil (Aust.) Ltd., Porter St., Wollongong North	565633	1970	Road Match	123m
	MOTOR OIL & SPIRIT DEPOTS	Atlantic Oil & Petrol Depot, Porter St., Wollongong	239449	1961	Road Match	123m
	MOTOR OIL & SPIRIT DEPOTS	Atlantic Union Oil Co. Ltd., Porter St., North Wollongong	239450	1961	Road Match	123m
	MOTOR OIL & SPIRIT MERCHANTS	Atlantic Union Oil Co. Ltd., Porter St., North Wollongong	190129	1950	Road Match	123m
	MOTOR OIL & SPIRIT MERCHANTS	Jones Gus Pty. Ltd. (Agents Atlantic)., Porter St., North Wollongong	190133	1950	Road Match	123m
16	MOTOR GARAGES &/OR ENGINEERS	Gwynneville Auto Centre, Foleys Rd., Gwynneville	565535	1970	Road Match	125m
	CLUBS & SPORTS BODIES	City of Greater Wollongong Tennis Club, Beaton Park, Foleys Rd., Gwynneville	235218	1961	Road Match	125m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
16	SPORTS & TRAVEL GOODS-RETAIL	Foleys Rd., Gwynneville	240949	1961	Road Match	125m
	CLUBS & SPORTS BODIES	Wollongong & District Tennis School Beaton Park, Foleys Road Gwynneville	235180	1961	Road Match	125m
	CLUBS & SPORTS BODIES	Wollongong & District Tennis School, Beaton Park, Foleys Rd., Gwynneville	235272	1961	Road Match	125m
	TENNIS COACHES	Wollongong & District Tennis School, Beaton Park, Foleys Rd., Gwynneville	241260	1961	Road Match	125m
	TENNIS COURT CONSTRUCTION CONTRACTORS	Wollongong & District Tennis School, Beaton Park, Foleys Rd., Gwynneville	241264	1961	Road Match	125m
	BAKERS-BREAD	Denison, S. and Sons., Foleys Rd., Gwynneville	185041	1950	Road Match	125m
	FRUITERERS & GREENGROCERS-RETAIL	Salt, R. V., Foley's Rd., GwynnevIlle	187669	1950	Road Match	125m
	SEEDSMEN & NURSERYMEN	South Coast Nursery., Foleys Rd., Gwynneville	191926	1950	Road Match	125m
17	MOTOR OIL &/OR SPIRIT DEPOTS	Total Aust. Ltd., 1 Robson Rd., Wollongong West 2500	143405	1982	Road Match	132m
	OIL MERCHANTS - GENERAL	Valvoline (Aust.) Pty. Ltd., Depot, 1 Robson Rd., Wollongong West 2500	143755	1982	Road Match	132m
	OIL MERCHANTS-GENERAL	Valvoline Aust., Robson Rd., West Wollongong	566029	1970	Road Match	132m
	JOINERY MANUFACTURERS	Hodge & Norman, Robson Rd., Keiraville	238051	1961	Road Match	132m

Dry Cleaners, Motor Garages & Service Stations

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

Legend

- Site Boundary
- Buffer 500m
- Property Boundary
- Business directory records mapped to a specific premise
- Business directory records mapped to a road intersection
- Business directory records mapped to a road corridor
- Business directory records mapped to a general area

Scale: 0 180 360 540 720 Meters

Coordinate System: GDA 1994 MGA Zone 56

Date: 11 January 2022

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

Historical Business Directories

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

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
1	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	Dons Motor Repairs. 141A Princes Highway., Fairy Meadow 2519	143260	1982	Premise Match	308m	East
	MOTOR GARAGES &/OR ENGINEERS	Golden Fleece Service Station, 137 Princes Hghwy., Mt. Ousley	565527	1970	Premise Match	308m	East
	MOTOR GARAGES &/OR ENGINEERS	Golden Fleece Service Station, 135 Princes Highway., Fairy Meadow	239360	1961	Premise Match	308m	East
	DRY CLEANERS, PRESSERS & DYERS	Greater Wollongong Drive-In Dry Cleaners, 141a Princes Highway., Fairy Meadow	235764	1961	Premise Match	308m	East
2	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	A.B.C. Automatics. 119 Princes H'way, Fairy Meadow 2519	143206	1982	Premise Match	325m	East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	G.P. Automotive Services, 119 Princes Highway, Fairy Meadow 2519	143276	1982	Premise Match	325m	East
3	DRY CLEANERS & PRESSERS.	Ryans Dry Cleaning & Laundry Pty Ltd., 22 Foleys Rd Gwynneville	100437	1991	Premise Match	388m	South
	DRY CLEANERS & PRESSERS	Ryans Dry Cleaning & Laundry (W'gong) Pty. Ltd., 22 Foleys Rd., Gwynneville 2500	140482	1982	Premise Match	388m	South
4	MOTOR SERVICE STATIONS-PETROL, OILS, Etc.	Beaurepaire Tyre Service (Wollongong) Pty. Ltd., 115-117 Princes Hghwy., Fairy Meadow	565740	1970	Premise Match	393m	East
	MOTOR GARAGES &/OR ENGINEERS	Brailey, E. J., 115 Princes Hghwy., Fairy Meadow	565478	1970	Premise Match	393m	East
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Beaurepaire Tyre Service (Wollongong) Pty. Ltd., 115-117 Princes Highway., Fairy Meadow	239548	1961	Premise Match	393m	East
	MOTOR GARAGES &/OR ENGINEERS	Bralley, E. J., 115 Princes Highway., Fairy Meadow	239331	1961	Premise Match	393m	East
5	MOTOR GARAGES &/OR ENGINEERS	Simpson, J. W., 15 Cottage Green Rd., Mount Ousley, 2519	565584	1970	Premise Match	395m	North

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
6	MOTOR GARAGES &/OR ENGINEERS	Gwynneville Auto Centre, Foleys Rd., Gwynneville	565535	1970	Road Match	125m
7	MOTOR GARAGES & SERVICE STATIONS.	Mobil Service Station., Princes Hway Fairy Meadow	102488	1991	Road Match	383m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	Mobil Service Station, Princes Highway., Fairy Meadow 2519	143316	1982	Road Match	383m
	MOTOR GARAGES &/OR ENGINEERS	Cordillo Service Station, Princes Hghwy., Fairy Meadow	565498	1970	Road Match	383m
	MOTOR SERVICE STATIONS-PETROL, OILS, Etc.	Fairy Meadow Auto Port, Princes Hghwy., Fairy Meadow	565754	1970	Road Match	383m
	MOTOR SERVICE STATIONS-PETROL, OILS, Etc.	Mount Ousley Service Station, Princes Hghwy., Fairy Meadow	565781	1970	Road Match	383m
	MOTOR GARAGES &/OR ENGINEERS	Nubley Bros. Service Pty. Ltd., Princes Hghwy., Fairy Meadow	565568	1970	Road Match	383m
	MOTOR SERVICE STATIONS-PETROL, OILS, Etc.	Nubley Bros. Service Station, Princes Hghwy., Fairy Meadow	565783	1970	Road Match	383m
	MOTOR SERVICE STATIONS-PETROL, OILS, Etc.	Perfect Circle Remoulds, Princes Hghwy., Fairy Meadow	565786	1970	Road Match	383m
	MOTOR GARAGES &/OR ENGINEERS	Total (Fairy Meadow) Service Station, Princes Hghwy., Fairy Meadow	565602	1970	Road Match	383m
	MOTOR SERVICE STATIONS-PETROL, OILS, Etc.	Total (Fairy Meadow) Service Station, Princes Hghwy., Fairy Meadow	565798	1970	Road Match	383m
	MOTOR SERVICE STATIONS-PETROL, OILS, Etc.	Total (Fairy Meadow) Service Station, Princes Highway, Fairy Meadow	565797	1970	Road Match	383m
	MOTOR GARAGES &/OR ENGINEERS	Cordillo Service Station (The), Princes Highway., Fairy Meadow	239343	1961	Road Match	383m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Cordillo Service Station, Princes Highway., Fairy Meadow	239560	1961	Road Match	383m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Golden Fleece Service Station, Princes Highway., Fairy Meadow	239571	1961	Road Match	383m
	MOTOR GARAGES &/OR ENGINEERS	H. and M. Car Repairs, Princes Highway., Fairy Meadow	239364	1961	Road Match	383m
	MOTOR GARAGES &/OR ENGINEERS	Meadow Service Station, Princes Highway., Fairy Meadow	239390	1961	Road Match	383m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Meadow Service Station, Princes Highway., Fairy Meadow	239592	1961	Road Match	383m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Mount Ousley Service Station, Princes Highway., Fairy Meadow	239595	1961	Road Match	383m
	MOTOR GARAGES &/OR ENGINEERS	Nubley Bros. of Wollongong, Princes Highway., Fairy Meadow	239399	1961	Road Match	383m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Nubley Bros. Service Station, Princes Highway., Fairy Meadow	239599	1961	Road Match	383m
	MOTOR GARAGES &/OR ENGINEERS	Nubley Bros. Transport Pty. Ltd. Princes Highway, Fairy Meadow	239352	1961	Road Match	383m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Perfect Circle Remoulds, Princes Highway., Fairy Meadow	239605	1961	Road Match	383m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
7	DRY CLEANERS, PRESSERS & DYERS	Rex Dry Cleaners Pty. Ltd., Princes Highway., Fairy Meadow	235782	1961	Road Match	383m
	MOTOR GARAGES &/OR ENGINEERS	Beecham's Service Station., Princes Highway., Fairy Meadow	190071	1950	Road Match	383m
	MOTOR SERVICE STATIONS	Beecham's Service Station., Princes Highway., Fairy Meadow	190182	1950	Road Match	383m
	MOTOR GARAGES &/OR ENGINEERS	Del-Monte Garage., Princes Highway., Fairy Meadow	190083	1950	Road Match	383m
	MOTOR SERVICE STATIONS	Del-Monte Garage., Princes Highway., Fairy Meadow	190189	1950	Road Match	383m
	MOTOR GARAGES &/OR ENGINEERS	Diamond Motors., Princes Highway., Fairy Meadow	190084	1950	Road Match	383m
	MOTOR GARAGES &/OR ENGINEERS	Townend and Brown., Princes Highway., Fairy Meadow	190116	1950	Road Match	383m
8	MOTOR SERVICE STATIONS-PETROL, OILS, Etc.	Gladstone Motors (Wollongong) Pty. Ltd., Princes Hghwy., North Wollongong	565758	1970	Road Match	394m
	MOTOR SERVICE STATIONS-PETROL, OILS, Etc.	Golden Fleece Service Station, Princes Hghwy., North Wollongong	565761	1970	Road Match	394m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Gladstone Motors (Wollongong) Pty. Ltd., Princes Highway., North Wollongong	239568	1961	Road Match	394m
9	MOTOR SERVICE STATIONS-PETROL, OILS, Etc.	Wiseman Park Service Station, Gipps St., Gwynneville	565803	1970	Road Match	493m

Aerial Imagery 2021

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

Data Source Aerial Imagery: © Aerometrex Pty Ltd	Coordinate System: GDA 1994 MGA Zone 56	Date: 11 January 2022

Aerial Imagery 2016

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

Scale:	Data Source Aerial Imagery:	Coordinate System:	Date: 11 January 2022
0 110 220 330 440 Meters	© Aerometrex Pty Ltd	GDA 1994 MGA Zone 56	

Aerial Imagery 2008

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

Scale:
0 110 220 330 440
Meters

Data Source Aerial Imagery: © 2022 Google Inc, used with permission. Google and the Google logo are registered trademarks of Google Inc.

Coordinate System:
GDA 1994 MGA Zone 56

Date: 10 January 2022

Aerial Imagery 1998

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

Aerial Imagery 1994

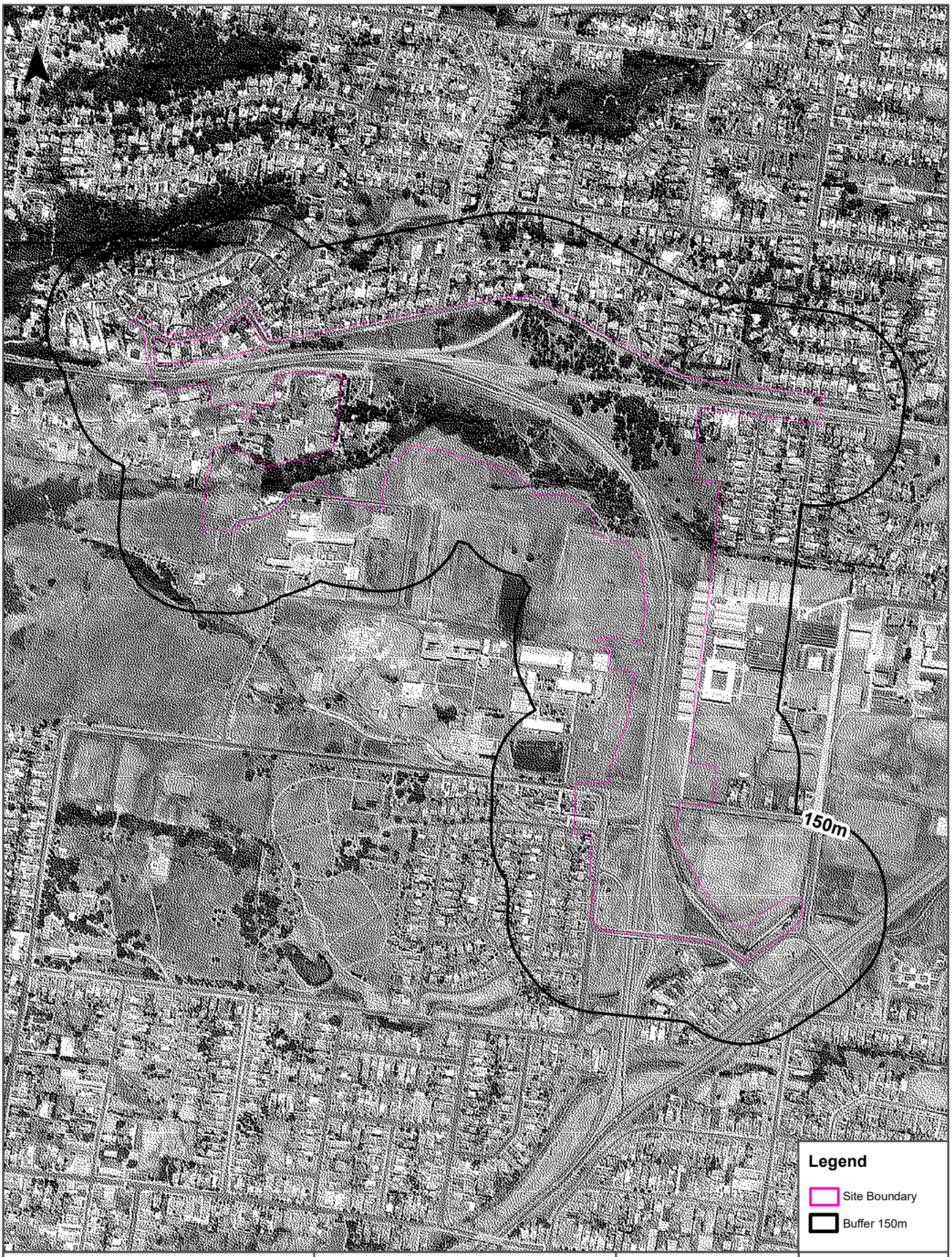
Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

Aerial Imagery 1984

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

Aerial Imagery 1974

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500



Aerial Imagery 1970

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

Aerial Imagery 1961

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

Scale: 0 110 220 330 440 Meters	Data Source Aerial Imagery: © Aerometrex Pty Ltd	Coordinate System: GDA 1994 MGA Zone 56	Date: 11 January 2022

Aerial Imagery 1951

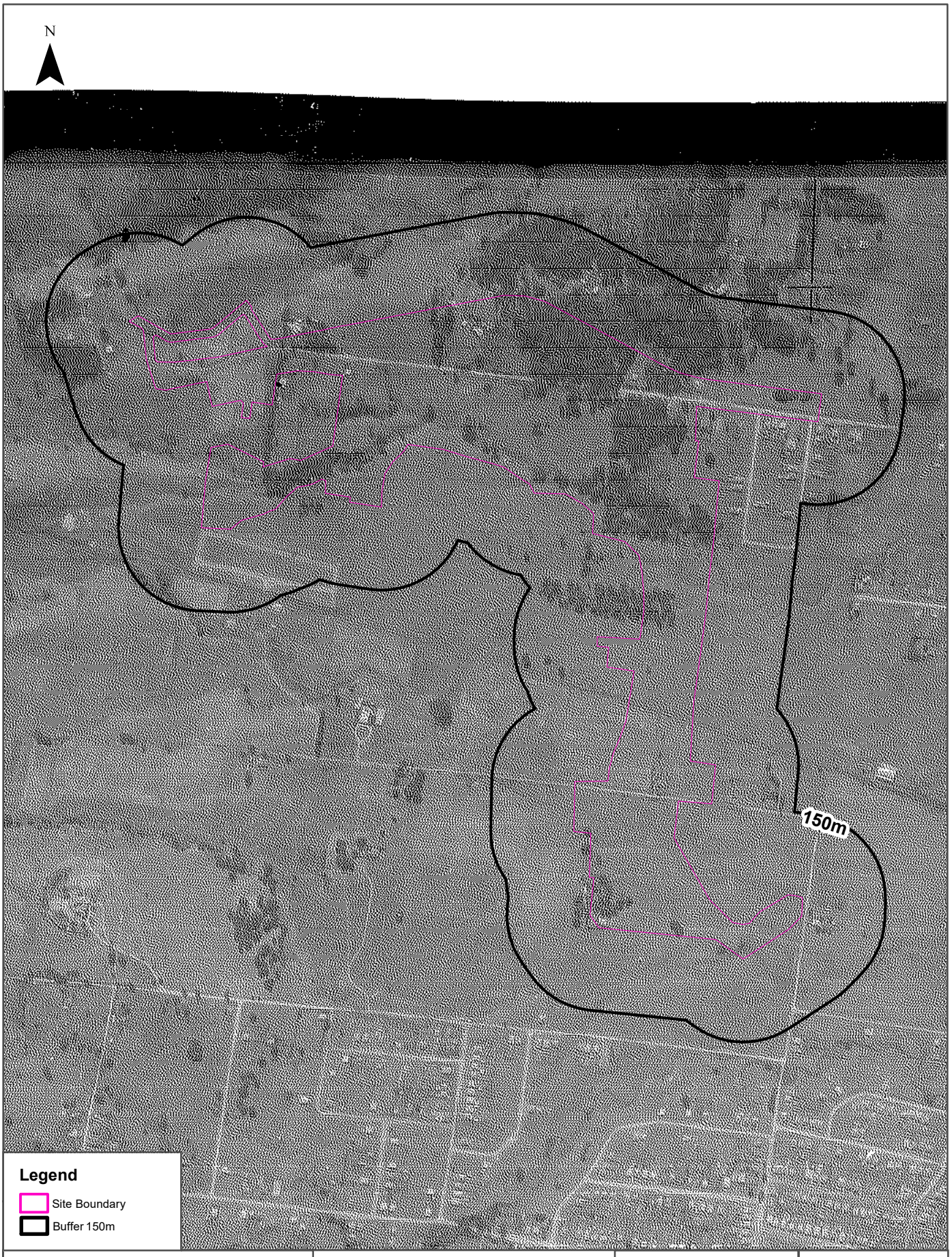
Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

Aerial Imagery 1948-1951

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

Aerial Imagery 1941

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500



Topographic Map 2015

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

Scale: 0 230 460 690 920 Meters

Data Sources: Topographic Map Data
© NSW Land and Property Information

Coordinate System:
GDA 1994 MGA Zone 56

Date: 11 January 2022

Historical Map 1998

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

Please note that due to the inaccuracies in the original maps, the site may not allign to the map correctly.

Scale:	Data Sources: NATMAP 1:100,000 Topographic Maps Geoscience Australia	Coordinate System: GDA 1994 MGA Zone 56	Date: 11 January 2022

Historical Map c.1942

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

Historical Map c.1927

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

Topographic Features

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

Scale: 0 100 200 400 600 800 1,000 Meters

Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2022

Coordinate System: GDA 1994 MGA Zone 56

Date: 11 January 2022

Topographic Features

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

Points of Interest

What Points of Interest exist within the dataset buffer?

Map Id	Feature Type	Label	Distance	Direction
137240	Parking Area	Parking Area	0m	On-site
138544	Park	Park	0m	On-site
138059	Sports Court	TENNIS COURTS	17m	West
137297	Park	BASS PARK	25m	North East
138008	Park	Park	36m	South
137318	Sports Field	OVAL	36m	South East
137990	Sports Field	HOCKEY FIELD	47m	West
137219	Swimming Pool Facility	UNIVERSITY POOL	50m	South West
137324	Park	Park	55m	North East
137317	Sports Field	OVAL	67m	South
137064	Suburb	MOUNT OUSLEY	80m	North West
138219	Sports Centre	UNIVERSITY RECREATION AND ACQUATIC CENTRE	88m	South West
137299	Park	Park	101m	North
137444	Sports Field	Sports Field	119m	South West
138540	TAFE College	WOLLONGONG TAFE COLLEGE	123m	South East
137292	Park	Park	135m	North
137868	Combined Primary-Secondary School	ELONERA MONTESSORI SCHOOL	163m	East
137809	Park	Park	174m	North West
137298	Park	MCARTHUR PARK	186m	North East
137293	Park	FOOTHILLS ROAD RESERVE	205m	North West
138006	Park	ARISTO PARK	220m	East
138549	Park	STRONE PARK	225m	North East
138594	Post Office	WOLLONGONG UNIVERSITY POST OFFICE	226m	South
137655	Place Of Worship	OMAR MOSQUE	227m	South East
137909	Special School	PARA MEADOWS SCHOOL	228m	South East
137396	Park	SPEARING RESERVE	250m	South
138548	Park	Park	269m	East
137863	High School	KEIRA HIGH SCHOOL	301m	South East
137431	Community Medical Centre	WOLLONGONG OUT OF HOME CARE	312m	South East
137430	Community Medical Centre	CHILD AND FAMILY AUDIOLOGY NORTH WOLLONGONG	312m	South East
137411	Community Medical Centre	PORTER STREET CENTRE	312m	South East

Map Id	Feature Type	Label	Distance	Direction
138539	University	UNIVERSITY OF WOLLONGONG	338m	South West
137323	Park	Park	352m	West
138005	Community Facility	WOLLONGONG DAY CENTRE	385m	North East
137920	Primary School	MOUNT OUSLEY PUBLIC SCHOOL	395m	North East
137325	Park	ROBINSON PARK	400m	South East
137300	Park	CENTAUR PARK	404m	North East
138541	High School	WOLLONGONG HIGH SCHOOL OF THE PERFORMING ARTS	405m	East
137294	Park	Park	410m	North
138538	Park	WOLLONGONG BOTANIC GARDENS	441m	South West
137659	Place Of Worship	FAIRY MEADOW COMMUNITY CHURCH	455m	North East
138535	Park	Park	460m	North West
137801	Place Of Worship	ST JOHNS ANGLICAN CHURCH	479m	South
138537	Sports Field	PLAYING FIELDS	482m	South West
138136	Wharf	Wharf	498m	South West
138081	Railway Station	NORTH WOLLONGONG RAILWAY STATION	507m	South East
137908	Primary School	PLEASANT HEIGHTS PUBLIC SCHOOL	516m	North West
138509	Post Office	GWYNNEVILLE POST OFFICE	516m	South
137811	Park	Park	535m	North
137821	Community Facility	WOLLONGONG SENIOR CITIZENS CENTRE	538m	South
137302	Park	CRAM PARK	563m	North East
137063	Suburb	GWYNNEVILLE	574m	South
138533	Sports Centre	BASKETBALL CENTRE	593m	South
137447	Sports Field	BOWLING GREENS	604m	South
137910	Primary School	ST BRIGIDS CATHOLIC PRIMARY SCHOOL	604m	South
138015	Place Of Worship	ST BRIGIDS	615m	South
137295	Park	Park	621m	North East
137919	Primary School	GOOD SAMARITAN CATHOLIC PRIMARY SCHOOL	623m	North East
138520	Club	WISEMAN PARK WOLLONGONG CITY BOWLING CLUB	637m	South
138004	Place Of Worship	ST JOHN VIANNEY	664m	North East
138534	Park	WISEMAN PARK	688m	South
137810	Park	Park	691m	North
138007	Academy	CONSERVATORIUM OF MUSIC	693m	South West
138542	Park	ANNE STREET RESERVE	694m	South
138577	Park	KOOLOOBONG PARK	694m	West
137301	Park	DYMOCK STREET RESERVE	705m	North
138521	Community Facility	POLISH ASSOCIATION IN WOLLONGONG	727m	South
138580	SES Facility	WOLLONGONG CITY SES	740m	East

Map Id	Feature Type	Label	Distance	Direction
137164	Community Facility	SOUTH COAST RESCUE SQUAD	746m	East
138009	Retirement Village	IRT BRAESIDE	760m	South
138590	Park	BEATON PARK	760m	South East
137689	Sports Court	TENNIS COURTS	766m	South
138017	Sports Field	Sports Field	769m	South East
137450	Sports Centre	BEATON PARK LEISURE CENTRE	795m	South
137065	Suburb	MOUNT PLEASANT	806m	North West
137231	Swimming Pool Facility	BEATON PARK POOL	808m	South East
138104	Sports Centre	NORTH WOLLONGONG INDOOR SPORTS	822m	East
137097	Primary School	GWYNNEVILLE PUBLIC SCHOOL	833m	South
138050	Sports Field	BOWLING GREENS	834m	North East
138545	Park	NYRANG PARK	836m	South
138543	Park	RICHARDSON PARK	846m	South West
137344	Club	WOLLONGONG TENNIS CLUB (CITY OF)	854m	South
138117	Sports Court	TENNIS COURTS	869m	South
137372	Club	THE FRATERNITY BOWLING AND RECREATION CLUB	886m	North East
137449	Community Facility	GWYNNEVILLE SCOUTS	889m	South
137436	Athletics Track	KERRYN MCCANN ATHLETIC CENTRE	909m	South East
137448	Community Facility	GWYNNEVILLE GIRL GUIDES	913m	South
136978	Park	MADDEN PARK	913m	North West
138065	Park	Park	926m	North West
137060	Suburb	NORTH WOLLONGONG	927m	South East
138576	Park	CEDAR PARK	933m	South West
137928	Primary School	KEIRAVILLE PUBLIC SCHOOL	961m	South West
138513	Community Home	PRESBYTERIAN AGED CARE-WOLLONGONG	972m	South East
138592	Community Facility	WOLLONGONG NORTH SCOUT HALL	977m	South East
138116	Park	WOLLONGONG SCOUTS RESERVE	983m	South East

Topographic Features

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

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
15545	Water	Operational	MOUNT PLEASANT RESERVOIR	09/04/2006	887m	North West

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
178418	Water	Operational		01/01/2012	0m	On-site
178419	Water	Operational		01/01/2012	0m	On-site

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
120121977	Primary	Undefined		0m	West
152025451	Primary	Right of way	14.28 m	5m	East
152261183	Primary	Right of way		174m	East
120107018	Primary	Undefined		331m	South East
120117409	Primary	Undefined		364m	South East
120114691	Primary	Undefined		365m	South East
120118603	Primary	Undefined		373m	South East
181346735	Primary	Right of way	Var	990m	North East

Topographic Features

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

State Forest

What State Forest exist within the dataset buffer?

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

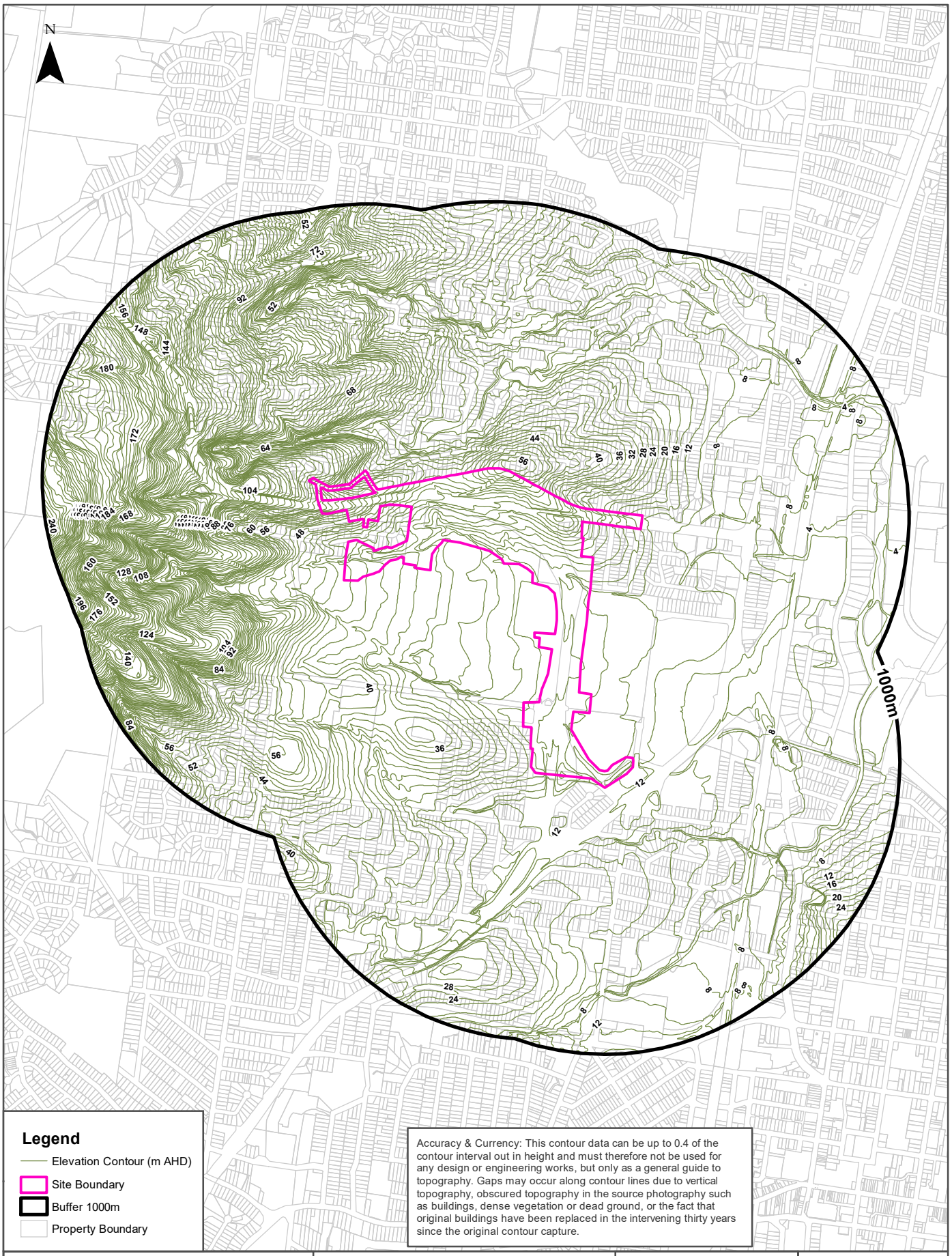
National Parks and Wildlife Service Reserves

What NPWS Reserves exist within the dataset buffer?

Reserve Number	Reserve Type	Reserve Name	Gazetted Date	Distance	Direction
N0620	STATE CONSERVATION AREA	Illawarra Escarpment State Conservation Area	04/07/1980	404m	West

Elevation Contours (m AHD)

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500



Hydrogeology & Groundwater

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

Hydrogeology

Description of aquifers within the dataset buffer:

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

Hydrogeology Map of Australia : Commonwealth of Australia (Geoscience Australia)

Temporary Water Restriction (Botany Sands Groundwater Source) Order 2018

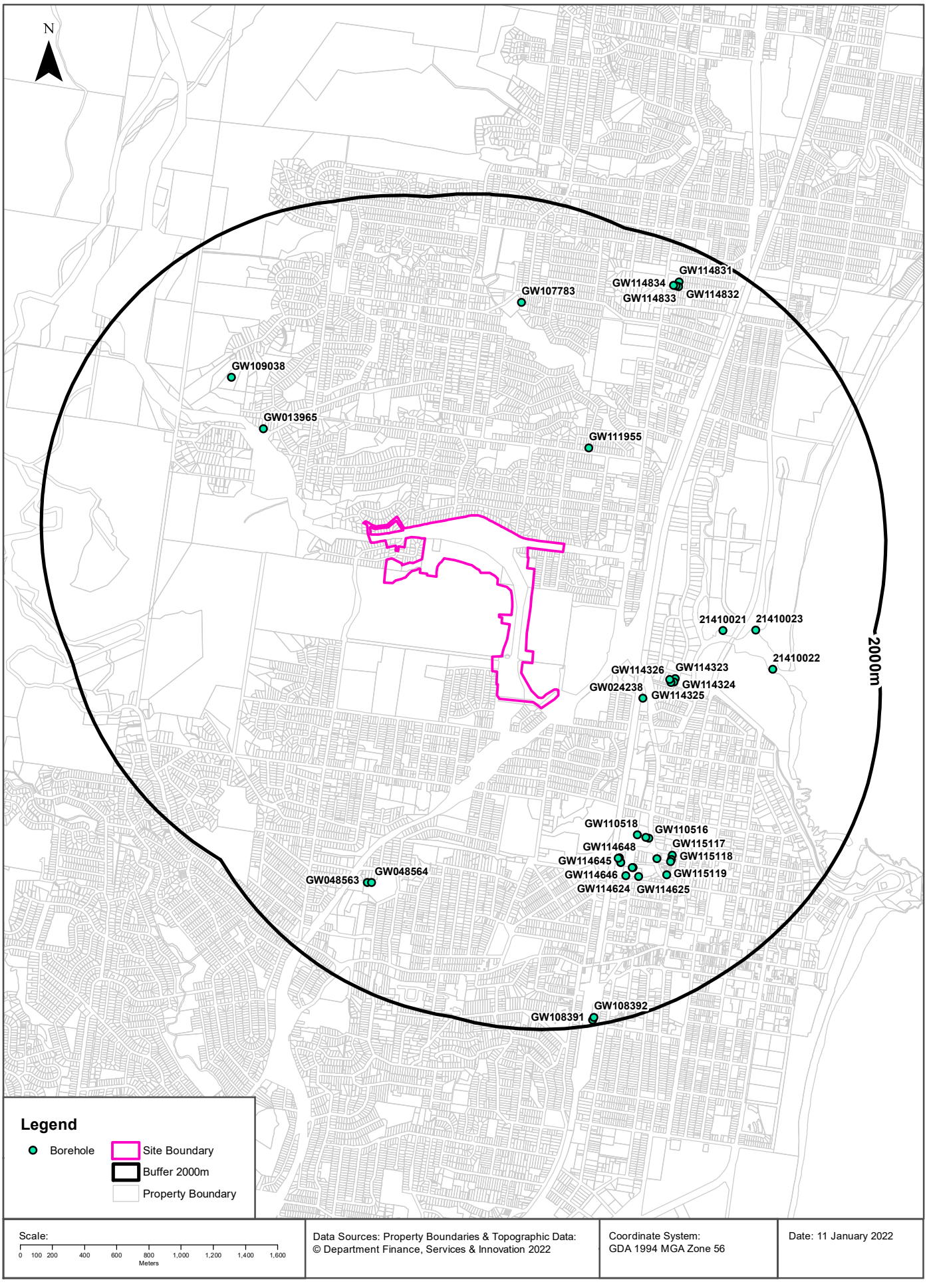
Temporary water restrictions relating to the Botany Sands aquifer within the dataset buffer:

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

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500



Hydrogeology & Groundwater

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

Groundwater Boreholes

Boreholes within the dataset buffer:

GW No.	Licence No	Work Type	Owner Type	Authorised Purpose	Intended Purpose	Name	Complete Date	Final Depth (m)	Drilled Depth (m)	Salinity (mg/L)	SWL (m bgl)	Yield (L/s)	Elev (AHD)	Dist	Dir
GW024238	10BL018655	Well	Private	Commercial	Industrial		01/01/1966	6.00		V.Salty				527m	South East
GW111955	10BL602246, 10WA106523	Spear	Private	Domestic	Domestic		25/01/2013	2.50	2.50		1.00	0.500		616m	North East
GW114326	10BL604703	Bore	Private	Monitoring Bore	Monitoring Bore	Mobil - Nth Wollongong	20/07/2011	4.00	4.00					696m	South East
GW114325	10BL604703	Bore	Private	Monitoring Bore	Monitoring Bore	Mobil - Nth Wollongong	20/07/2011	4.00	4.00					703m	South East
GW114324	10BL604703	Well	Private	Monitoring Bore	Monitoring Bore		20/07/2011	4.00						721m	South East
GW114323	10BL604703	Bore	Private	Monitoring Bore	Monitoring Bore	Mobil - Nth Wollongong	20/07/2011	4.00	4.00					730m	South East
GW013965	10BL009412, 10WA105875	Bore	Private	Domestic	Domestic		01/02/1959	38.10	38.10		28.60	0.950		851m	North West
GW110518	10BL600001	Well	Private	Monitoring Bore	Monitoring Bore		15/12/2004	6.00	6.00		4.00			990m	South East
GW110517	10BL600001	Well	Private	Monitoring Bore	Monitoring Bore		15/12/2004	5.00	5.00		4.00			1030m	South East
GW110516	10BL600001	Well	Private	Monitoring Bore	Monitoring Bore		15/12/2004	6.00	6.00		2.50			1046m	South East
GW114648	10BL605277	Bore	Private	Monitoring Bore	Monitoring Bore		09/05/2013	8.60	8.60		5.00			1051m	South East
GW114645	10BL605277	Bore	Private	Monitoring Bore	Monitoring Bore		09/05/2013	6.00	6.00		3.10			1053m	South East
GW114647	10BL605277	Bore	Private	Monitoring Bore	Monitoring Bore		09/05/2013	11.00	11.00		2.20			1082m	South East
GW114646	10BL605277	Bore	Private	Monitoring Bore	Monitoring Bore		09/05/2013	5.70	5.70		2.20			1083m	South East
21410021					UNK								3.48	1088m	East
GW114627	10BL605278	Bore	Private	Monitoring Bore	Monitoring Bore		08/05/2013	16.00	16.00					1143m	South East
GW114626	10BL605278	Bore	Private	Monitoring Bore	Monitoring Bore	AGL - JEMENA ASSET MANAGEMENT	16/10/2014	5.60	5.60		1.90			1147m	South East
GW114624	10BL605278	Bore	Private	Monitoring Bore	Monitoring Bore		08/05/2013	6.00	6.00		2.80			1170m	South East
GW115121	10BL605115			Monitoring Bore	Monitoring Bore		21/03/2012	5.10	5.10		1.80			1179m	South East
GW114625	10BL605278	Bore	Private	Monitoring Bore	Monitoring Bore		08/05/2013	3.70	3.70		2.20			1211m	South East
GW115117	10BL605115			Monitoring Bore	Monitoring Bore		20/03/2012	5.40	4.00		2.40			1217m	South East
GW109038	10BL600933, 10WA106499	Bore	Private	Domestic	Domestic		14/07/2008	62.00	62.00	Good	24.40	0.500		1219m	North West
GW115118	10BL605115			Monitoring Bore	Monitoring Bore		20/03/2012	5.00	5.00		2.60			1235m	South East

GW No.	Licence No	Work Type	Owner Type	Authorised Purpose	Intended Purpose	Name	Complete Date	Final Depth (m)	Drilled Depth (m)	Salinity (mg/L)	SWL (m bgl)	Yield (L/s)	Elev (AHD)	Dist	Dir
GW115119	10BL605115			Monitoring Bore	Monitoring Bore		20/03/2012	5.10	5.10		3.20			1241m	South East
21410023					UNK								6.93	1283m	East
GW115120	10BL605115			Monitoring Bore	Monitoring Bore		21/03/2012	10.00	10.00		9.80			1296m	South East
21410022					UNK								6.61	1341m	East
GW107783	10BL164257, 10WA106431	Bore		Domestic	Domestic		20/01/2006	45.00	45.00	Fresh	5.00	0.200		1353m	North
GW048564	10BL020930, 10WA105910	Bore	Private				01/01/1966	30.50	30.50					1392m	South
GW048563	10BL020931, 10WA105911	Well	Private				01/01/1966	30.50	30.50	501-1000 ppm				1407m	South
GW114834	10BL602479	Bore	Private	Monitoring Bore	Monitoring Bore	Allied Industrial - BH4/MW-4	07/02/2008	4.80	4.80					1745m	North East
GW114833	10BL602479	Bore	Private	Monitoring Bore	Monitoring Bore	Allied Industrial - BH-3/MW-3	07/02/2008	4.80	4.80					1750m	North East
GW114832	10BL602479	Bore	Private	Monitoring Bore	Monitoring Bore	Allied Industrial - BH-2/MW-2	07/02/2008	4.80	4.80					1752m	North East
GW114831	10BL602479	Bore	Private	Monitoring Bore	Monitoring Bore	Allied Industrial - BH-1/MW-1	07/02/2008	4.80	4.80					1780m	North East
GW108392	10BL600472	Bore		Monitoring Bore			28/09/2007	6.00	6.00		5.83			1953m	South
GW108391	10BL600472	Bore		Monitoring Bore			28/09/2007	6.20	6.20					1968m	South

Hydrogeology & Groundwater

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

Driller's Logs

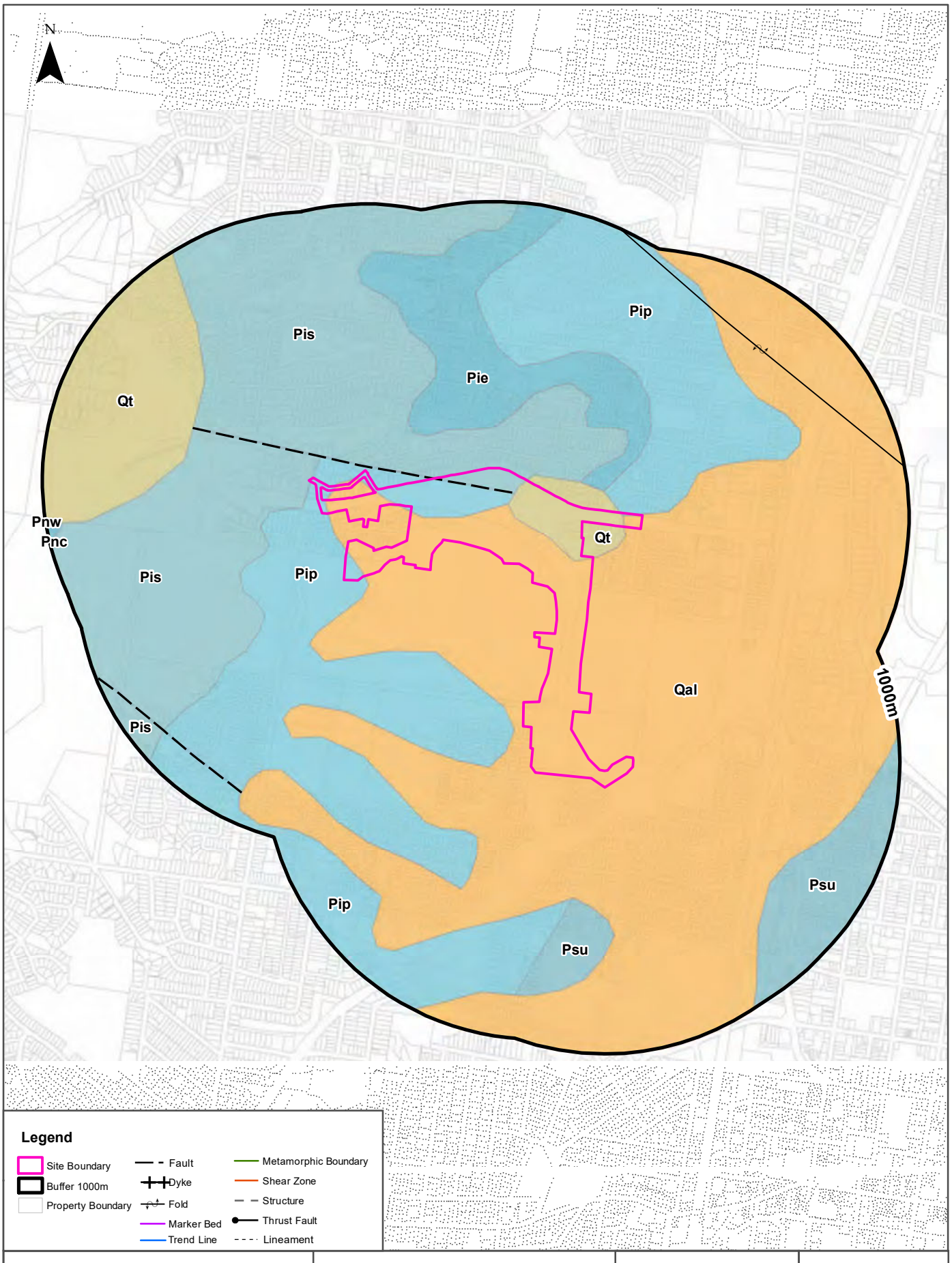
Drill log data relevant to the boreholes within the dataset buffer:

Groundwater No	Drillers Log	Distance	Direction
GW013965	0.00m-0.30m Soil 0.30m-11.27m Decomposed 11.27m-11.88m Mud Shale Clay Grey 11.88m-14.93m Stones Decomposed 14.93m-15.54m Coal 15.54m-21.64m Shale Grey 21.64m-22.55m Coal 22.55m-25.90m Shale Light Grey 25.90m-26.51m Shale Hard 26.51m-28.95m Shale Dark Grey 28.95m-31.69m Shale Light Grey 31.69m-32.30m Shale Very Hard 32.30m-33.52m Shale Dark 33.52m-34.74m Shale 34.74m-35.05m Shale Hard Water Supply 35.05m-36.57m Shale Very Hard 36.57m-38.10m Shale Grey	851m	North West
GW114648	0.00m-1.00m TOPSOIL,SILTY CLAY BROWN TO DARK 1.00m-4.00m SANDY GRAVELLY CLAY DARK BROWN 4.00m-4.90m CLAY,DARK GREY TO BLACK,MINOR SAND AND GRAVELS 4.90m-7.50m CLAY YELLOW BROWN MINOR SILT 7.50m-8.60m CLAY YELLOW BROWN SOFT,MOIST	1051m	South East
GW114645	0.00m-0.10m OLD BITUMEN,BARE GROUND AND GRASS 0.10m-3.00m CLAY M/PLASTICITY,BLACK STRONG ORGANIC 3.00m-4.00m CLAY,LOW TO MED.PLASTICITY,ORANGE AND RED MOTTLE 4.00m-6.00m CLAY LOW TO MED.PLASTICITY YELLOW TO YELLOW BROWN	1053m	South East
GW114647	0.00m-1.50m GRAVELLY CLAY,DARK BROWN,M/PLASTICITY 1.50m-3.00m CLAY BLACK M/PLASTICITY FIRM,MOIST 3.00m-5.00m CLAY BECOMING MOIST 5.00m-5.60m GRAVELLY CLAY BROWN/ORANGE/GREY 5.60m-11.00m SHALE,HIGHLY WEATHERED ,GREY	1082m	South East
GW114646	0.00m-1.50m GRAVELLY CLAY,DARK BROWN,M/PLASTICITY 1.50m-3.00m CLAY,BLACK MEDIUM PLASTICITY,FIRM,MOIST 3.00m-5.00m BECOMING MOIST 5.00m-5.70m GRAVELLY CLAY,BROWN ORANGE GREY,DRY	1083m	South East
GW114627	0.00m-0.12m BITUMEN 0.12m-0.60m ROADBASE CONCRETE CRUSHED 0.60m-1.40m GRAVELLY CLAY HIGH PLASTICITY,BROWN FINE TO MED. GRAINED GRAVEL 1.40m-5.50m CLAY MED TO HIGH PLASTICITY 5.50m-16.00m SANDSTONE GREY,SIGHTLY WEATHERED,HARD	1143m	South East
GW114626	0.00m-0.10m BITUMEN 0.10m-0.60m ROADBASE,CONCRETE CRUSHED 0.60m-1.40m GRAVELLY CLAY HIGH PLASTICITY,BROWN 1.40m-5.60m CLAY,GREY WEATHERED STRONG HYDROCARBON ODOUR	1147m	South East
GW114624	0.00m-0.20m GRASS, TOPSOIL SILTY CLAY 0.20m-3.50m SILTY GRAVEL DARK BROWN TO BROWN 3.50m-6.00m SANDSTONE BROWN TO YELLOW	1170m	South East
GW115121	0.00m-0.10m CONCRETE 0.10m-0.30m FILL, SAND 0.30m-5.10m SANDSTONE GREY FINE GRAINED	1179m	South East
GW114625	0.00m-2.00m ROADBASE,SILTY GRAVEL,GREY,BROWN SILT 2.00m-3.70m CLAY,HIGH PLASTICITY,GREY,SOFT,MOIST	1211m	South East
GW115117	0.00m-0.10m CONCRETE 0.10m-0.30m SANDY GRAVEL 0.30m-1.25m FILL SANDY GRAVEL PALE YELLOW 1.25m-4.00m SANDY CLAY 4.00m-5.40m SANDSTONE WHITE	1217m	South East

Groundwater No	Drillers Log	Distance	Direction
GW109038	0.00m-9.00m RED CLAY 9.00m-12.00m LIGHT GREY,MG,WEATHERED 12.00m-13.00m COAL SEAM 13.00m-15.00m LIGHT GREY,MG. SOFT 15.00m-16.00m COAL SEAM 16.00m-33.00m GREY HARD 33.00m-48.00m DARK GREY 48.00m-51.00m DARK GREY SOFT ZONES 51.00m-54.00m FRACTURED MOIST DARK GREY ZONES 54.00m-62.00m HARD DARK GREY FG SHALES	1219m	North West
GW115118	0.00m-0.20m SANDY GRAVEL 0.20m-2.80m CLAY 2.80m-3.45m CLAYEY SAND 3.45m-5.00m SANDSTONE	1235m	South East
GW115119	0.00m-0.05m ASPHALT PAVEMENT 0.05m-0.30m GRAVELLY SAND 0.30m-2.70m CLAY 2.70m-3.25m SANDSTONE WEATHERED 3.25m-5.10m SANDSTONE	1241m	South East
GW115120	0.00m-0.05m CONCRETE 0.05m-0.25m GRAVELLY CLAY 0.25m-0.50m CLAY 0.50m-0.90m SANDY CLAY 0.90m-10.00m SANDSTONE FINE GRAINED	1296m	South East
GW107783	0.00m-0.30m TOPSOIL 0.30m-1.50m RED CLAY 1.50m-4.00m SANDY CLAY 4.00m-5.00m GREY CLAY 5.00m-8.00m BROWN SHALE 8.00m-10.00m BLUE SHALE 10.00m-11.00m WEATHERED SHALE 11.00m-39.00m SANDSTONE 39.00m-45.00m COAL	1353m	North
GW114834	0.00m-0.60m GRAVEL WITH MINOR CLAY 0.60m-2.40m CLAY WITH MINOR SAND 2.40m-3.00m CLAY WITH MINOR GRAVEL 3.00m-4.80m CLAY WITH MINOR SAND	1745m	North East
GW114833	0.00m-0.75m GRAVEL MED. DENSE,MOIST GREY 0.75m-0.80m GRAVEL COARSE WET GREY 0.80m-1.80m CLAY SOFT FIRM 1.80m-2.70m CLAY WITH MINOR GRAVEL 2.70m-3.00m CLAY WITH MINOR GRAVEL DARK BROWN 3.00m-3.60m CLAY VERY STIFF MOIST 3.60m-4.80m CLAY HARD MOIST,GREY	1750m	North East
GW114832	0.00m-1.10m GRAVEL,COARSE GRAVEL 1.10m-1.20m CLAY FIRM MOIST 1.20m-2.40m CLAY WITH MINOR SAND 2.40m-2.80m CVLAY WITH MINOR GRAVEL 2.80m-4.80m CLAY WITH MINOR SAND	1752m	North East
GW114831	0.00m-0.50m GRAVEL,LOOSE MOIST BLACK 0.50m-1.00m CLAY FIRM MOIST GREY / BROWN 1.00m-1.80m CLAY FIRM MOIST 1.80m-2.20m CLAY WITH MINOR GRAVEL 2.20m-2.80m GRAVEL WITH MINOR CLAY 2.80m-4.80m CLAY WITH MINOR SAND	1780m	North East
GW108392	0.00m-0.30m FILL,GRAVEL 0.30m-1.00m FILL. SAND 1.00m-1.90m CLAY BROWN 1.90m-6.00m CLAY DARK,BROWN	1953m	South
GW108391	0.00m-0.40m FILL , GRAVEL 0.40m-1.50m FILL SAND 1.50m-2.50m CLAY 2.50m-6.20m CLAY	1968m	South

Geology

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500



Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2022

Coordinate System: GDA 1994 MGA Zone 56

Date: 11 January 2022

Geology

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

Geological Units 1:100,000

What are the Geological Units within the dataset buffer?

Symbol	Description	Unit Name	Group	Sub Group	Age	Dom Lith	Map Sheet	Dist	Dir
Qal	quartz and lithic "fluvial" sand, silt, and clay						Wollongong & Port Hacking	0m	On-site
Qt	talus.Unsorted landslide material						Wollongong & Port Hacking	0m	On-site
Pip	interbedded lithic-sandstone, coal, carbonaceous claystone, siltstone, and claystone	Pheasants Nest Formation	Illawarra Coal Measures	Cumberland SubGroup			Wollongong & Port Hacking	0m	On-site
Pis	interbedded qtz-lithic ss.,grey siltstone,and claystone,carbonaceous claystone,clay,laminite and coal	Undifferentiated Sydney SubGroup	Illawarra Coal Measures	Sydney SubGroup			Wollongong & Port Hacking	0m	On-site
Pie	fine to medium-grained bioturbated lithic sandstone	Erins Vale Formation	Illawarra Coal Measures	Cumberland SubGroup			Wollongong & Port Hacking	73m	North
Psu	red, brown, and grey lithic sandstone	Budgong Sandstone	Shoalhaven Group				Wollongong & Port Hacking	432m	South
Pnc	fine to medium-grained quartz-lithic sandstone	Coal Cliff Sandstone	Narrabeen Group	Clifton SubGroup			Wollongong & Port Hacking	936m	West
Pnw	grey shale and minor quartz-lithic sandstone	Wombarra Claystone	Narrabeen Group	Clifton SubGroup			Wollongong & Port Hacking	991m	West

Geological Structures 1:100,000

What are the Geological Structures within the dataset buffer?

Feature	Name	Description	Map Sheet	Distance	Direction
Fault		Fault, position approximate	Wollongong & Port Hacking	0m	On-site
Fold	SOUTH BULLI SYNCLINE	Fold, position approximate	Wollongong & Port Hacking	763m	North East

Geological Data Source : NSW Department of Industry, Resources & Energy

Naturally Occurring Asbestos Potential

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

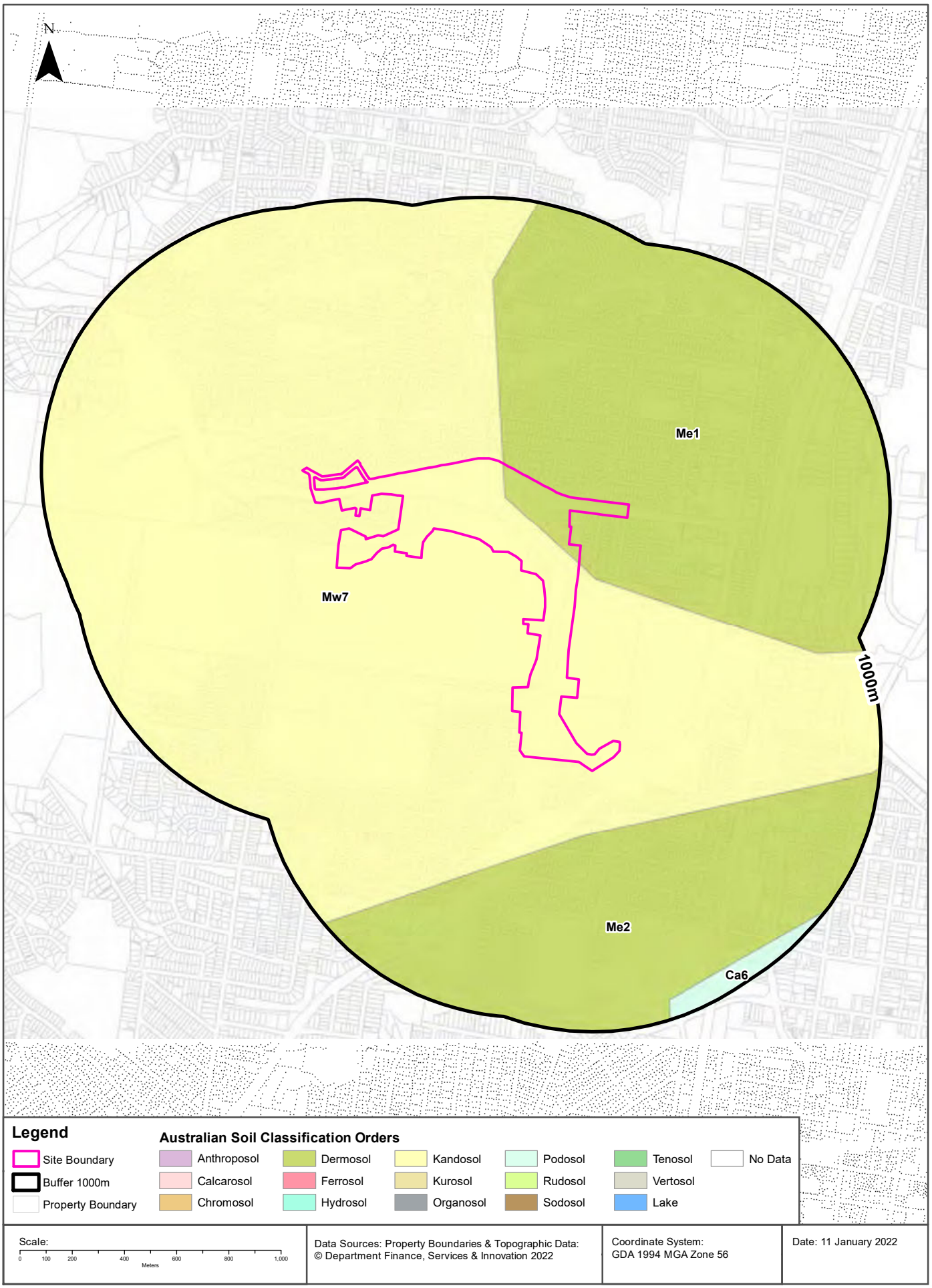
Naturally Occurring Asbestos Potential

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												

Atlas of Australian Soils

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500



Soils

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

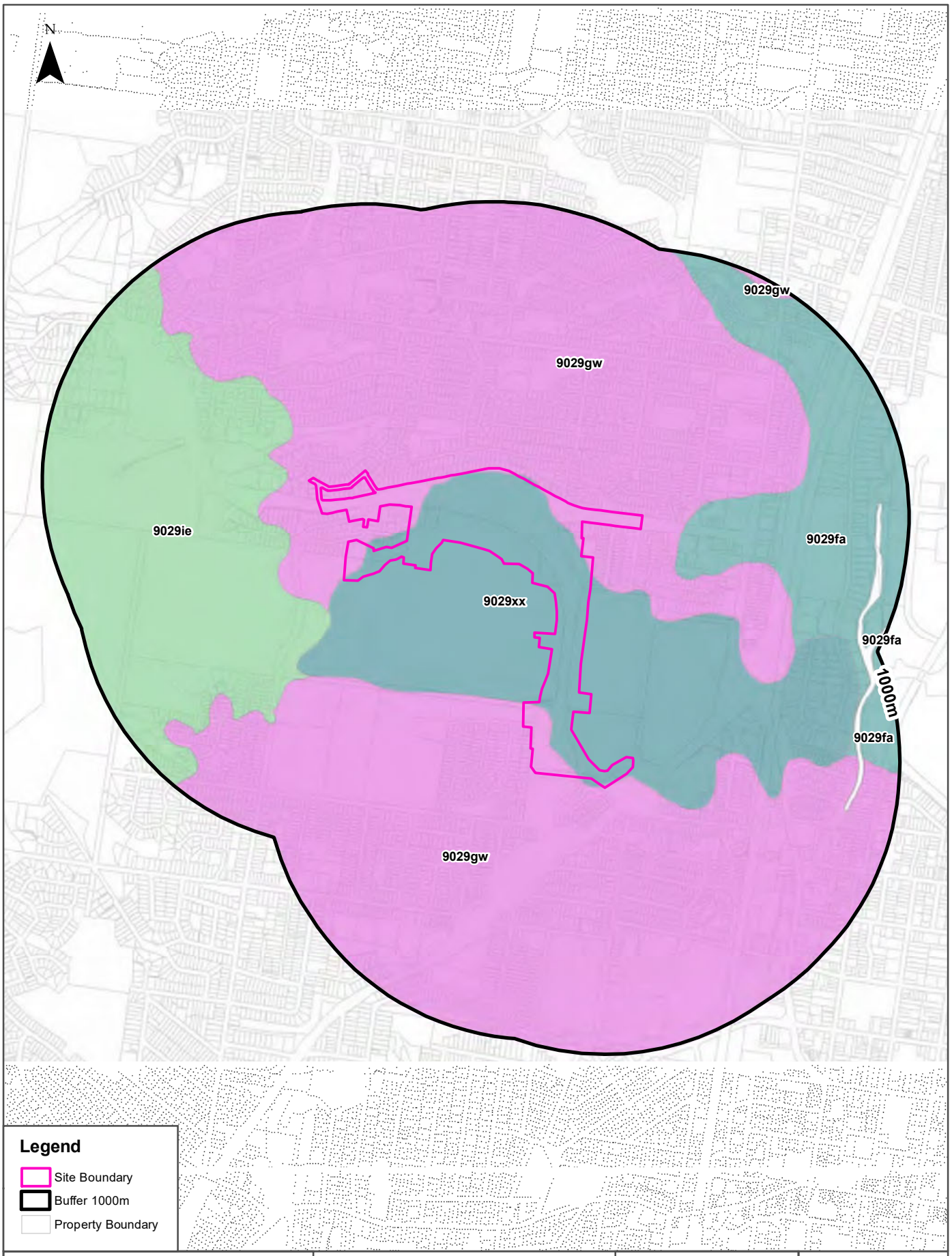
Atlas of Australian Soils

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

Map Unit Code	Soil Order	Map Unit Description	Distance	Direction
Mw7	Kandosol	Steep colluvial slump slopes beneath the sandstone scarp: chief soils are acid leached red earths (Gn2.14). Associated are a variety of soils including (Gn2.44) and (Gn3.21).	0m	On-site
Me1	Dermosol	Hilly with some steep slopes and small graded valleys: moderately steep rounded hills of brown and red friable earths (Gn3.21 and Gn3.22 and Gn3.11 and Gn3.12) in association with less rounded hill slopes of hard acidic yellow mottled soils (Dy3.41), hard acidic red soils (Dr2.21), and yellow leached earths (Gn3.54), and also other hill slopes of loamy soils having an A2 horizon (Um4.2) with yellow-brown earths (Gn2.44); stream valleys of various soils including (Dy4.41), (Dy5.41), and (Um6.11).	0m	On-site
Me2	Dermosol	Steep hilly to mountainous with incised stream valleys: steep but more or less rounded hill slopes of brown friable earths (Gn3.21 and Gn3.22) and possibly some (Gn4) soils, in association with: at the higher altitudes, steep hill slopes of sandy soils (Uc4.2), loamy soils having an A2 horizon (Um4.2) with yellow-brown earths (Gn2.44), and possibly (Uc6.11) and (Um5.41) soils; and at the lower altitudes, moderate to steep slopes of hard acidic yellow mottled soils (Dy3 21 and Dy3.41), hard acidic red soils (Dr2.21), and yellow leached friable earths (Gn3.54); and narrow incised stream valleys of various soils including (Um6.11) and (Dy) soils. This unit is a broad one. In some areas the (Um4.2) and (Gn2.44) soils and in others the (Dy) and (Dr) soils rather than the (Gn3 soils could be dominant.	234m	South
Ca6	Podosol	Dunes of leached sands (Uc2.2) with some areas of (Uc2.3) soils in low-lying situations, also (Dy5.41) soils in some localities, and flanked by some dunes of calcareous sands (Uc1.11) along the coast.	907m	South East

Soil Landscapes of Central and Eastern NSW

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500



Soils

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

Soil Landscapes of Central and Eastern NSW

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

Soil Code	Name	Distance	Direction
9029xx	Disturbed Terrain	0m	On-site
9029gw	Gwynneville	0m	On-site
9029ie	Illawarra Escarpment	82m	West
9029fa	Fairy Meadow	150m	East

Acid Sulfate Soils

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

Acid Sulfate Soils

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

Environmental Planning Instrument - Acid Sulfate Soils

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

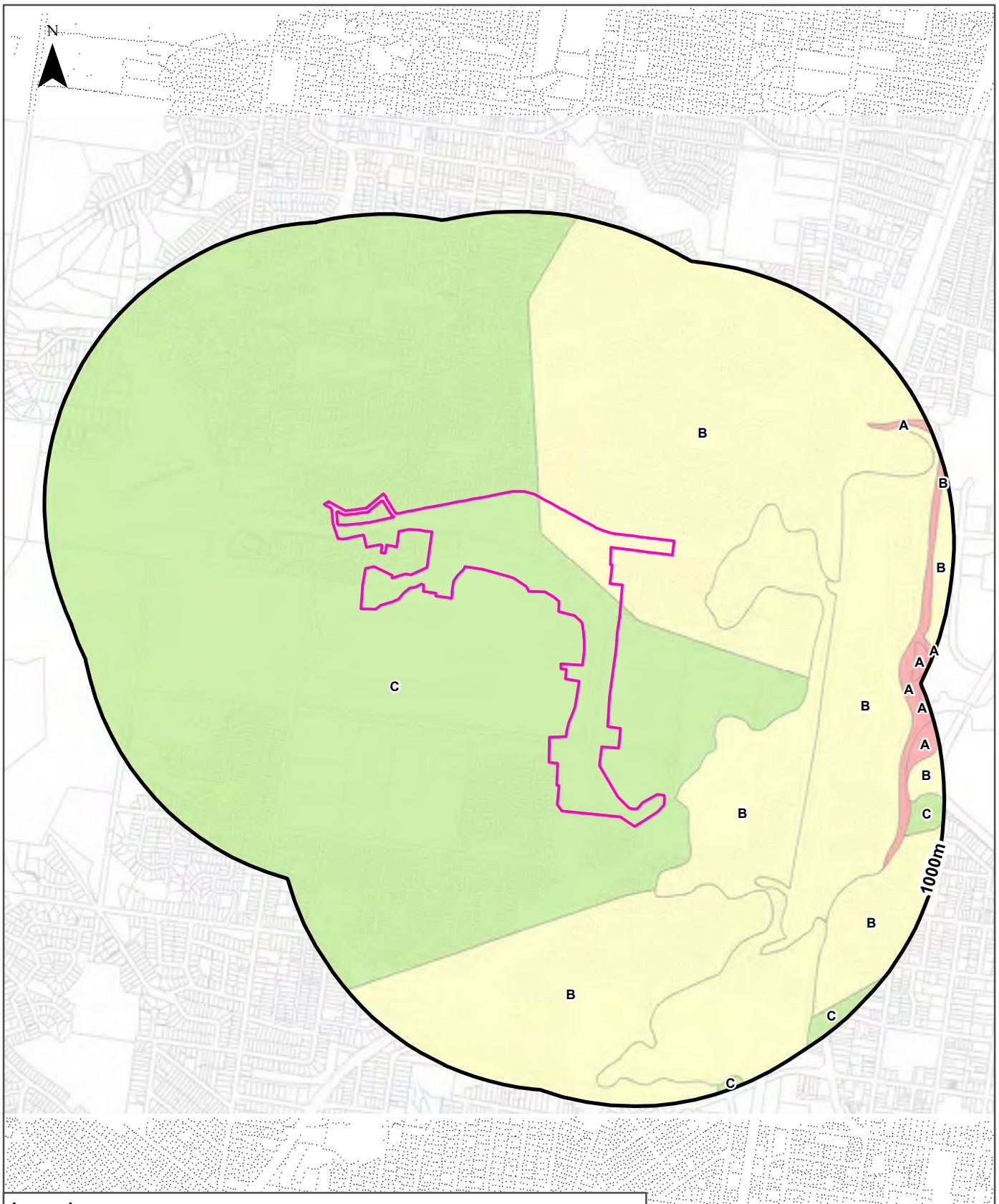
Soil Class	Description	EPI Name
5	Works within 500 metres of adjacent Class 1, 2, 3, or 4 land that is below 5 metres AHD and by which the watertable is likely to be lowered below 1 metre AHD on adjacent Class 1, 2, 3 or 4 land, present an environmental risk	Wollongong Local Environmental Plan 2009

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

Soil Class	Description	EPI Name	Distance	Direction
4	Works more than 2 metres below natural ground surface present an environmental risk; Works by which the watertable is likely to be lowered more than 2 metres below natural ground surface, present an environmental risk	Wollongong Local Environmental Plan 2009	41m	South East
3	Works more than 1 metre below natural ground surface present an environmental risk; Works by which the watertable is likely to be lowered more than 1 metre below natural ground surface, present an environmental risk	Wollongong Local Environmental Plan 2009	421m	South East

Atlas of Australian Acid Sulfate Soils

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500



Legend

- Site Boundary
- Buffer 1000m
- Property Boundary

Probability of occurrence of Acid Sulfate Soils

- A. High (>70%)
- B. Low (6-70%)
- C. Extremely Low (1-5%)
- D. No Chance (0%)
- No Data

Scale: 0 100 200 400 600 800 1,000 Meters

Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2022

Coordinate System: GDA 1994 MGA Zone 56

Date: 11January 2022

Acid Sulfate Soils

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

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.	0m	On-site
A	High Probability of occurrence. >70% chance of occurrence.	864m	East

Dryland Salinity

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

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

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

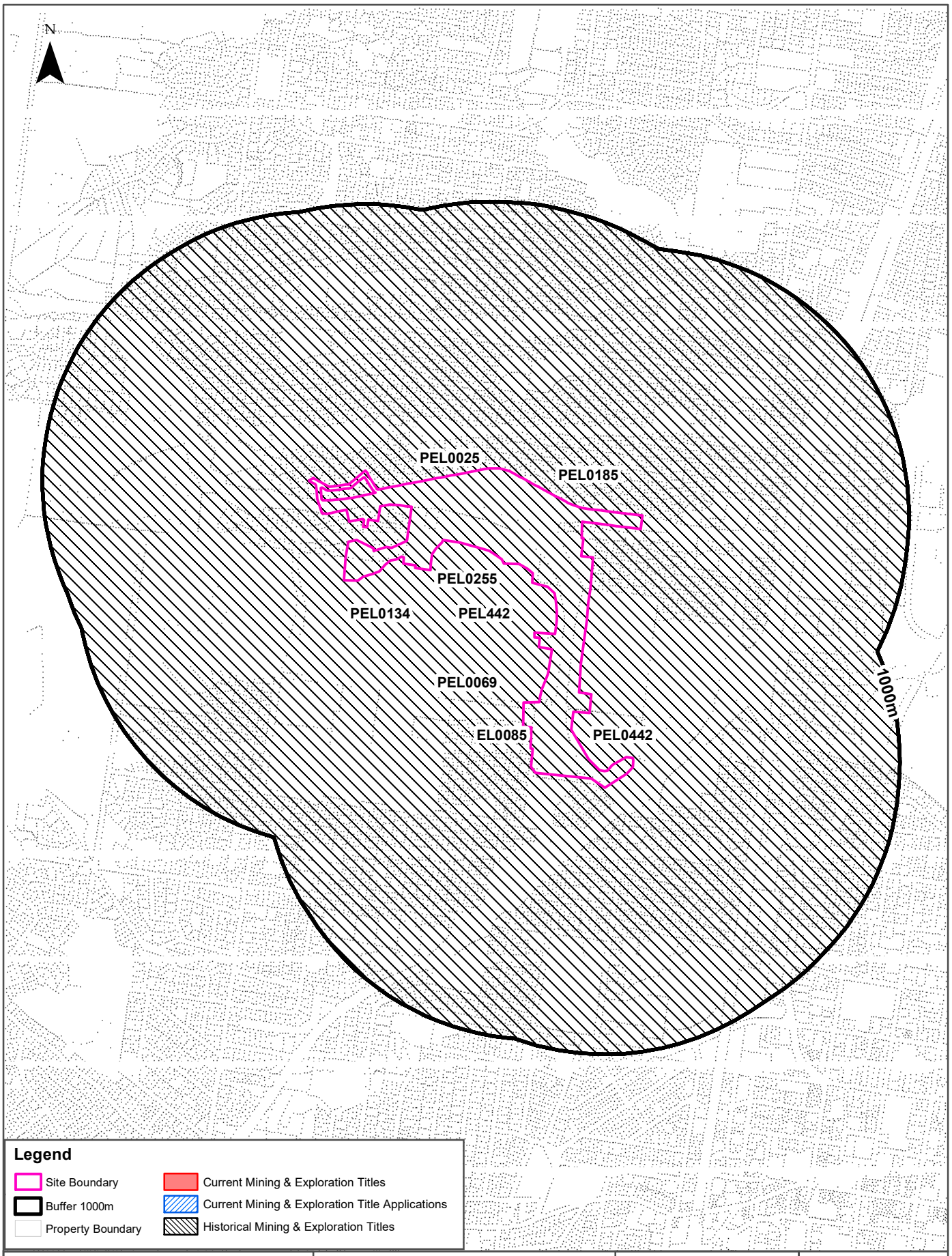
Mining Subsidence Districts

Mining Subsidence Districts within the dataset buffer:

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

Mining & Exploration Titles

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500



Mining

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

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

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

Historical Mining & Exploration Titles

Historical Mining & Exploration Titles within the dataset buffer:

Title Ref	Holder	Start Date	End Date	Resource	Minerals	Dist	Dir
PEL0069	ALLIANCE OIL DEVELOPMENT AUSTRALIA NL, OIL DEVELOPMENT NL			PETROLEUM	Petroleum	0m	On-site
PEL0134	CANADIAN AUSTRALIAN PETROLEUM NL			PETROLEUM	Petroleum	0m	On-site
PEL0185	JOHN STREVENS (TERRIGAL) NL			PETROLEUM	Petroleum	0m	On-site
PEL0255	AGL PETROLEUM OPERATIONS PTY LTD, THE AUSTRALIAN GAS LIGHT COMPANY	3/12/1980	8/03/1993	PETROLEUM	Petroleum	0m	On-site
PEL0025	AUSTRALIAN IRON AND STEEL LTD			PETROLEUM	Petroleum	0m	On-site
PEL442	APEX ENERGY NL,SYDNEY BASIN CBM PTY LTD			MINERALS		0m	On-site
PEL0442	APEX ENERGY NL	27/02/2002	16/03/2015	PETROLEUM	Petroleum	0m	On-site
EL0085	CONTINENTAL OIL CO OF AUSTRALIA LIMITED	01 Feb 1967	01 Feb 1968	MINERALS		0m	On-site

State Environmental Planning Policy

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

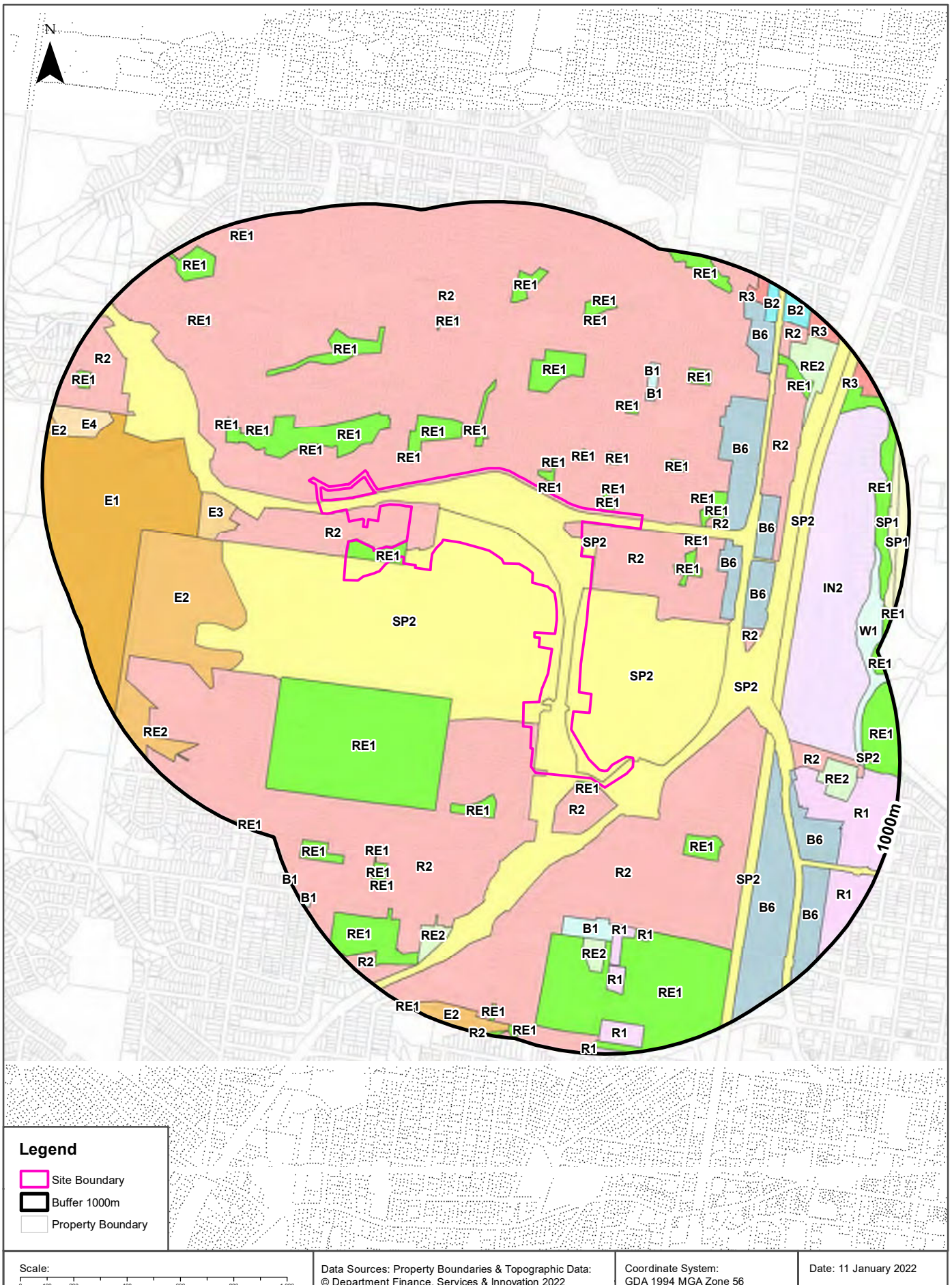
State Significant Precincts

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							

EPI Planning Zones

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500



Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2022
Planning: NSW Crown Copyright - Planning & Environment

Coordinate System: GDA 1994 MGA Zone 56

Date: 11 January 2022

Environmental Planning Instrument

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

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
R2	Low Density Residential		Wollongong Local Environmental Plan 2009	12/03/2021	12/03/2021	03/09/2021	Amendment No 42	0m	On-site
R2	Low Density Residential		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		0m	On-site
R2	Low Density Residential		Wollongong Local Environmental Plan 2009	08/11/2013	08/11/2013	03/09/2021	Amendment No 14	0m	On-site
SP2	Infrastructure	Educational Establishment	Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		0m	On-site
SP2	Infrastructure	Road	Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		0m	On-site
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		0m	On-site
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		0m	North East
SP2	Infrastructure	Public Utility Undertaking	Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		0m	East
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	10/07/2015	10/07/2015	03/09/2021	Amendment No 21	0m	North East
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		13m	South
R2	Low Density Residential		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		13m	South
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		37m	North East
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	10/07/2015	10/07/2015	03/09/2021	Amendment No 21	64m	North East
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	08/11/2013	08/11/2013	03/09/2021	Amendment No 14	82m	North West
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	08/11/2013	08/11/2013	03/09/2021	Amendment No 14	84m	North West
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		84m	North West
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		85m	North
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		109m	North West
R2	Low Density Residential		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		115m	South
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		160m	North East
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		176m	North East
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		179m	South
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		182m	East
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		198m	North East
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	10/07/2015	10/07/2015	03/09/2021	Amendment No 21	213m	East
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		215m	East
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	10/07/2015	10/07/2015	03/09/2021	Amendment No 21	231m	East
R2	Low Density Residential		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		239m	East

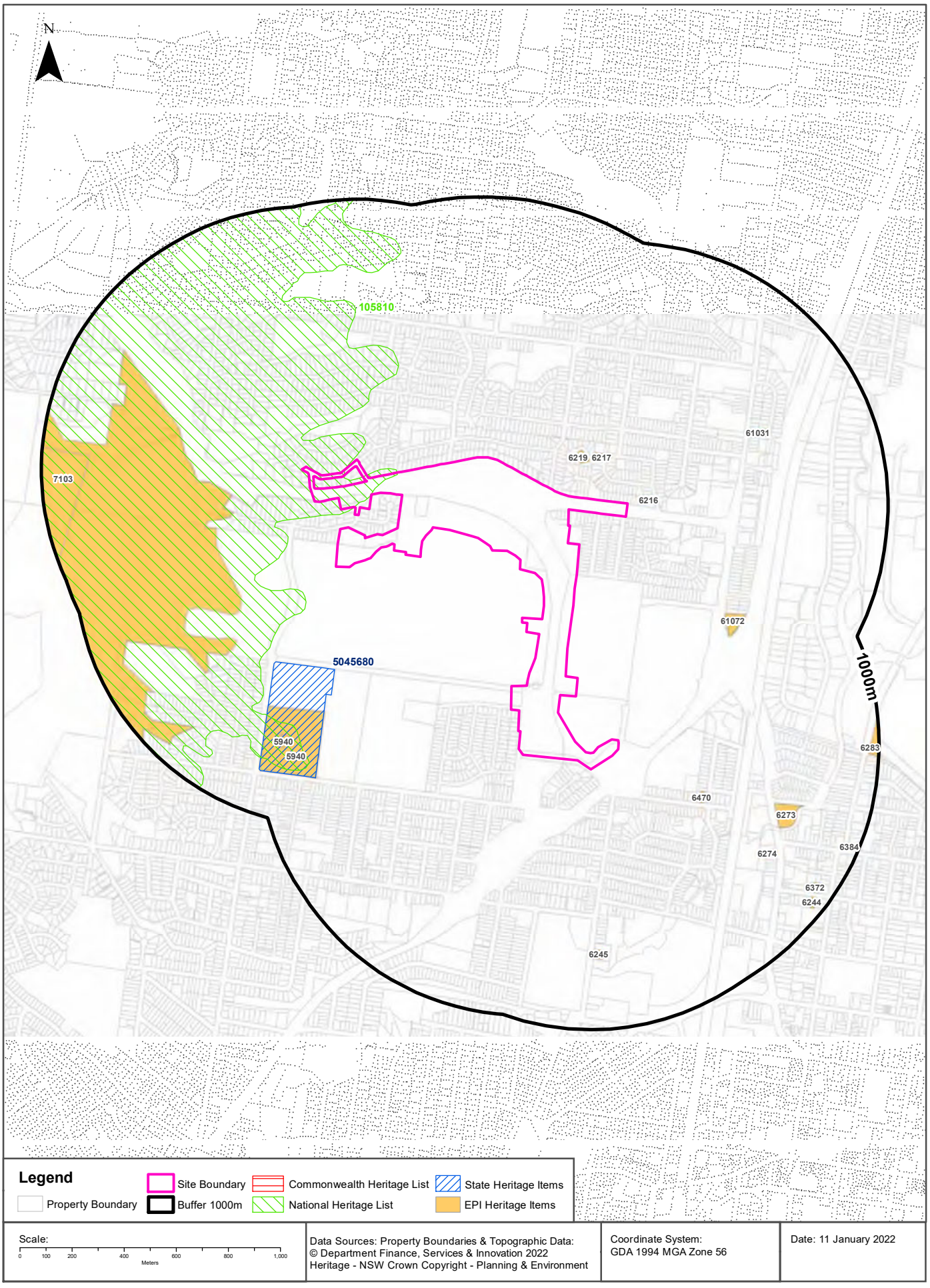
Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	08/11/2013	08/11/2013	03/09/2021	Amendment No 14	257m	North West
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		270m	South West
E3	Environmental Management		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		287m	West
B6	Enterprise Corridor		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		304m	North East
B6	Enterprise Corridor		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		306m	East
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		313m	North
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		320m	South East
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	08/11/2013	08/11/2013	03/09/2021	Amendment No 14	361m	North West
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		376m	North East
E2	Environmental Conservation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		386m	West
E1	National Parks and Nature Reserves		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		404m	West
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		412m	North West
B6	Enterprise Corridor		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		431m	East
B6	Enterprise Corridor		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		432m	East
B1	Neighbourhood Centre		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		433m	North East
R2	Low Density Residential		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		448m	North East
SP2	Infrastructure	Railway	Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		472m	South East
B1	Neighbourhood Centre		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		479m	North East
B1	Neighbourhood Centre		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		488m	South
R1	General Residential		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		513m	South
B6	Enterprise Corridor		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		513m	South East
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		527m	North East
R2	Low Density Residential		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		530m	East
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		539m	South
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		543m	North
R1	General Residential		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		548m	South
SP2	Infrastructure	Railway	Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		564m	East
RE2	Private Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		567m	South
IN2	Light Industrial		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		573m	East
B6	Enterprise Corridor		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		587m	South East
R2	Low Density Residential		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		587m	South East
R1	General Residential		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		601m	South East
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		626m	North
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	10/07/2015	10/07/2015	03/09/2021	Amendment No 21	629m	North

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		647m	North
RE2	Private Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		648m	South
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		650m	South
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	08/11/2013	08/11/2013	03/09/2021	Amendment No 14	654m	South West
R1	General Residential		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		666m	South
RE2	Private Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		671m	North East
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	08/11/2013	08/11/2013	03/09/2021	Amendment No 14	684m	South
B6	Enterprise Corridor		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		687m	North East
RE2	Private Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		688m	South East
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		692m	North West
R2	Low Density Residential		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		697m	North West
R2	Low Density Residential		Wollongong Local Environmental Plan 2009	08/11/2013	08/11/2013	03/09/2021	Amendment No 14	719m	South
B6	Enterprise Corridor		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		734m	South East
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		740m	South
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		745m	North East
E4	Environmental Living		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		768m	West
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		777m	South West
R2	Low Density Residential		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		793m	North East
W1	Natural Waterways		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		829m	East
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		832m	East
R1	General Residential		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		832m	South East
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		848m	North West
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		856m	South East
SP2	Infrastructure	Sewerage System	Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		857m	South East
B2	Local Centre		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		859m	North East
R1	General Residential		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		868m	South
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		882m	South
RE2	Private Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		883m	South West
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		895m	North West
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		897m	North East
B2	Local Centre		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		900m	North East
R3	Medium Density Residential		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		908m	North East
R3	Medium Density Residential		Wollongong Local Environmental Plan 2009	12/03/2021	12/03/2021	03/09/2021	Amendment No 42	915m	North East
R3	Medium Density Residential		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		918m	North East

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
SP1	Special Activities	Innovation Campus	Wollongong Local Environmental Plan 2009	10/07/2015	10/07/2015	03/09/2021	Amendment No 21	919m	East
E2	Environmental Conservation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		921m	South
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		924m	North West
E2	Environmental Conservation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		941m	West
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		949m	South
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		951m	East
SP1	Special Activities	Innovation Campus	Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		953m	East
B1	Neighbourhood Centre		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		962m	South West
R1	General Residential		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		966m	South
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		980m	South West
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	03/09/2021		993m	South
RE1	Public Recreation		Wollongong Local Environmental Plan 2009	10/07/2015	10/07/2015	03/09/2021	Amendment No 21	995m	East

Heritage Items

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500



Heritage

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

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							

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
105810	Wara-n'hayara Plateau Area - part	Mount Kiera Rd, Wollongong NSW	1/11/092/0064	Indigenous	Place not included in NHL		0m	On-site

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
5045680	Gleniffer Brae	Murphys Avenue, Keiraville	WOLLONGONG	02/04/1999	00557	1183	392m	South West

Environmental Planning Instrument - Heritage

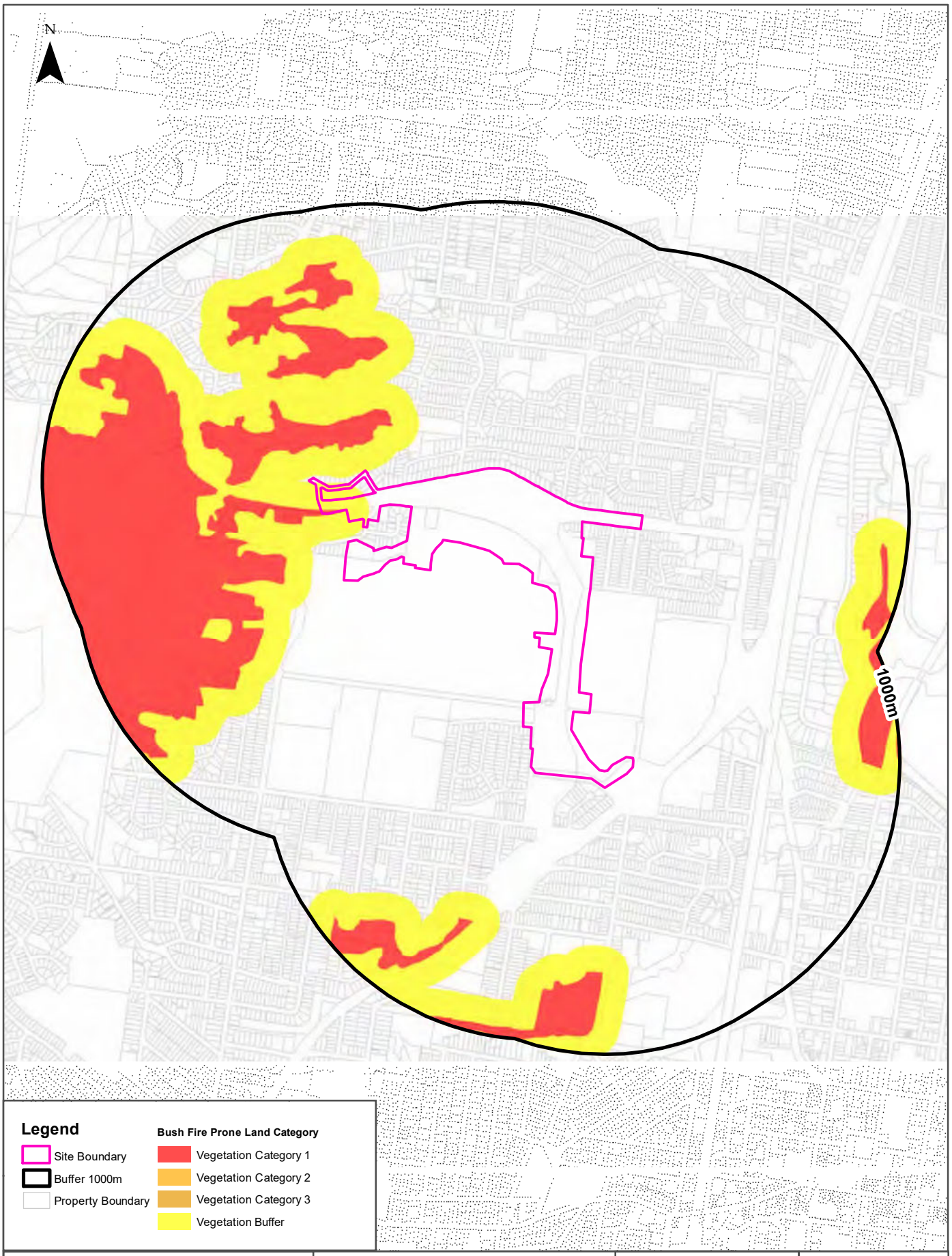
What are the EPI Heritage Items located within the dataset buffer?

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
6216	House	Item - General	Local	Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	23/04/2021	64m	East
6219	House	Item - General	Local	Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	23/04/2021	131m	North East
6217	Modernist House	Item - General	Local	Wollongong Local Environmental Plan 2009	23/04/2021	23/04/2021	23/04/2021	161m	North East

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
	Illawarra Escarpment Landscape Area	Conservation Area - Landscape	Local	Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	23/04/2021	287m	West
6470	Victorian House	Item - General	Local	Wollongong Local Environmental Plan 2009	23/04/2021	23/04/2021	23/04/2021	354m	South East
61072	House "warrenda"	Item - General	Local	Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	23/04/2021	530m	East
61031	Former North Illawarra Council Chambers	Item - General	Local	Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	23/04/2021	537m	North East
5940	"Gleniffer Brae" and surrounding Sorenson Garden	Item - Landscape	State	Wollongong Local Environmental Plan 2009	23/04/2021	23/04/2021	23/04/2021	560m	South West
6273	North Wollongong Hotel (formerly Bode's Hotel) and Group of Trees	Item - General	Local	Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	23/04/2021	633m	South East
6274	Former Coach House	Item - General	Local	Wollongong Local Environmental Plan 2009	23/04/2021	23/04/2021	23/04/2021	666m	South East
5940	"Gleniffer Brae" and surrounding Sorenson Garden	Item - General	State	Wollongong Local Environmental Plan 2009	23/04/2021	23/04/2021	23/04/2021	676m	South West
6245	Weatherboard House	Item - General	Local	Wollongong Local Environmental Plan 2009	23/04/2021	23/04/2021	23/04/2021	691m	South
7103	Mt Pleasant Colliery	Item - Archaeological	Local	Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	23/04/2021	817m	West
6372	House "Hillside"	Item - General	Local	Wollongong Local Environmental Plan 2009	23/04/2021	23/04/2021	23/04/2021	909m	South East
6244	House	Item - General	Local	Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	23/04/2021	933m	South East
6384	Magnolia	Item - Landscape	Local	Wollongong Local Environmental Plan 2009	26/02/2010	26/02/2010	23/04/2021	953m	South East
6283	Group of Norfolk Island Pines and Canary Island Palms	Item - Landscape	Local	Wollongong Local Environmental Plan 2009	23/04/2021	23/04/2021	23/04/2021	959m	South East

Natural Hazards - Bush Fire Prone Land

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500



Data Sources: Bush Fire Prone Land: © NSW Rural Fire Service 2022. Property Boundaries: © Department Finance, Services & Innovation 2022

Coordinate System: GDA 1994 MGA Zone 56

Date: 11 January 2022

Natural Hazards

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

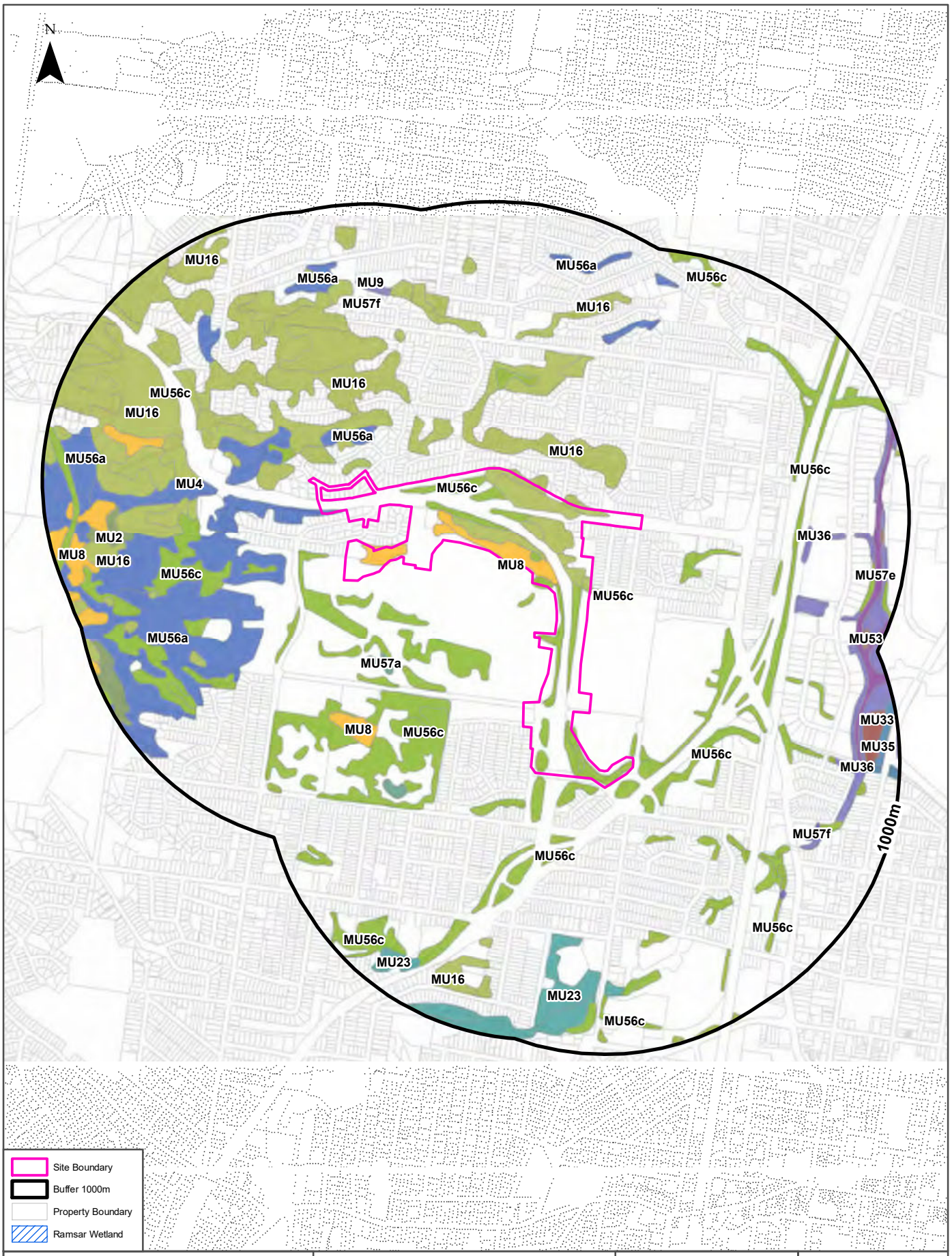
Bush Fire Prone Land

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

Ecological Constraints - Vegetation & Ramsar Wetlands

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500



Ecological Constraints

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

Native Vegetation of the Illawarra Escarpment & Coastal Plain

What Native Vegetation of the Illawarra Escarpment & Coastal Plain exists within the dataset buffer?

Veg Code	Vegetation Community	Disturbance Class	Disturbance Type	Understorey	Broad Vegetation Type	Endangered Ecological Community	Distance	Direction
MU16	Escarpment Blackbutt Forest	High Disturbance	Regrowth	Drier Shrubs Dominant	Native Vegetation		0m	On-site
MU8	Escarpment Moist Blue Gum Forest	High Disturbance	Weeds	Taller Dense Rainforest Canopy	Native Vegetation		0m	On-site
MU16	Escarpment Blackbutt Forest	Scattered Trees			Scattered Trees		0m	On-site
MU8	Escarpment Moist Blue Gum Forest	High Disturbance			Native Vegetation		0m	On-site
MU56c	Weeds and Exotics	Weeds and Exotics			Weeds and Exotics		0m	On-site
MU56a	Acacia Scrub	Acacia Scrub			Regenerating Vegetation		0m	On-site
MU16	Escarpment Blackbutt Forest	High Disturbance			Native Vegetation		54m	North West
MU16	Escarpment Blackbutt Forest	High Disturbance	Weeds	Sand	Native Vegetation		90m	North West
MU16	Escarpment Blackbutt Forest	High Disturbance	Weeds	Lantana	Native Vegetation		101m	North West
MU16	Escarpment Blackbutt Forest	Moderate Disturbance	Weeds	Taller Dense Rainforest Canopy	Native Vegetation		106m	North West
MU56a	Acacia Scrub	Acacia Scrub	Weeds	Taller Dense Rainforest Canopy	Regenerating Vegetation		124m	North West
MU56a	Acacia Scrub	Acacia Scrub	Weeds	Lantana	Regenerating Vegetation		216m	West
MU57a	Artificial Wetlands	Unassessed			Wetlands		284m	South West
MU16	Escarpment Blackbutt Forest	Moderate Disturbance	Weeds	Mesic/Rainforest Shrub Layer	Native Vegetation		395m	North West
MU16	Escarpment Blackbutt Forest	High Disturbance	Weeds	Taller Dense Rainforest Canopy	Native Vegetation		397m	West
MU16	Escarpment Blackbutt Forest	Moderate Disturbance		Mesic/Rainforest Shrub Layer	Native Vegetation		426m	West
MU4	Lowland Dry-Subtropical Rainforest	High Disturbance			Native Vegetation		447m	West
MU16	Escarpment Blackbutt Forest	High Disturbance	Weeds	Mesic/Rainforest Shrub Layer	Native Vegetation		483m	North West
MU16	Escarpment Blackbutt Forest	High Disturbance	Weeds	Acacia Dominant	Native Vegetation		489m	North
MU8	Escarpment Moist Blue Gum Forest	High Disturbance		Taller Dense Rainforest Canopy	Native Vegetation		560m	West
MU23	Coastal Grassy Red Gum Forest	High Disturbance	Weeds	Grassy	Native Vegetation	Illawarra Coastal Grassy Woodlands	570m	South
MU36	Coastal Swamp Oak Forest	High Disturbance			Native Vegetation	Sydney Coastal Estuary Swamp Complex	610m	East
MU57f	Fig Trees	Scattered Trees			Scattered Trees		615m	North West
MU36	Coastal Swamp Oak Forest	High Disturbance	Weeds	Not Described	Native Vegetation	Sydney Coastal Estuary Swamp Complex	635m	East

Veg Code	Vegetation Community	Disturbance Class	Disturbance Type	Understorey	Broad Vegetation Type	Endangered Ecological Community	Distance	Direction
MU16	Escarpment Blackbutt Forest	High Disturbance	Weeds	Grassy	Native Vegetation		635m	North West
MU9	Moist Coastal White Box Forest	High Disturbance	Weeds	Grassy	Native Vegetation		661m	North West
MU2	Coachwood Warm Temperate Rainforest	Moderate Disturbance		Acacia Dominant	Native Vegetation		683m	West
MU23	Coastal Grassy Red Gum Forest	Moderate Disturbance		Melaleuca Dominant	Native Vegetation	Illawarra Coastal Grassy Woodlands	685m	South
MU23	Coastal Grassy Red Gum Forest	High Disturbance	Weeds	Weeds	Native Vegetation	Illawarra Coastal Grassy Woodlands	725m	South
MU8	Escarpment Moist Blue Gum Forest	High Disturbance		Lantana	Native Vegetation		729m	West
MU23	Coastal Grassy Red Gum Forest	High Disturbance	Weeds	Mesic/Rainforest Shrub Layer	Native Vegetation	Illawarra Coastal Grassy Woodlands	781m	South
MU36	Coastal Swamp Oak Forest	High Disturbance	Weeds	Weeds	Native Vegetation	Sydney Coastal Estuary Swamp Complex	795m	East
MU57e	Estuarine Lagoons and Channels	Unassessed			Wetlands		833m	East
MU16	Escarpment Blackbutt Forest	Moderate Disturbance		Taller Dense Rainforest Canopy	Native Vegetation		847m	North West
MU8	Escarpment Moist Blue Gum Forest	High Disturbance	Weeds	Lantana	Native Vegetation		850m	West
MU33	Coastal Sand Bangalay-Blackbutt Forest	High Disturbance	Weeds	Grassy	Native Vegetation		864m	South East
MU35	Alluvial Swamp Mahogany Forest	Scattered Trees			Scattered Trees	Sydney Coastal Estuary Swamp Complex	871m	South East
MU53	Estuarine Alluvial Wetland	Unassessed			Native Vegetation	Sydney Coastal Estuary Swamp Complex	892m	East
MU35	Alluvial Swamp Mahogany Forest	High Disturbance	Weeds	Casuarina Dominant	Native Vegetation	Sydney Coastal Estuary Swamp Complex	902m	South East
MU2	Coachwood Warm Temperate Rainforest	Moderate Disturbance		Not Described	Native Vegetation		914m	West
MU23	Coastal Grassy Red Gum Forest	Moderate Disturbance	Weeds	Mesic/Rainforest Shrub Layer	Native Vegetation	Illawarra Coastal Grassy Woodlands	919m	South
MU2	Coachwood Warm Temperate Rainforest	Moderate Disturbance	Weeds	Acacia Dominant	Native Vegetation		921m	West
MU23	Coastal Grassy Red Gum Forest	Scattered Trees			Scattered Trees	Illawarra Coastal Grassy Woodlands	923m	South
MU16	Escarpment Blackbutt Forest	High Disturbance		Acacia Dominant	Native Vegetation		949m	West
MU36	Coastal Swamp Oak Forest	High Disturbance	Weeds	Grassy	Native Vegetation	Sydney Coastal Estuary Swamp Complex	985m	South East
MU33	Coastal Sand Bangalay-Blackbutt Forest	High Disturbance	Weeds	Not Described	Native Vegetation		999m	East

Ramsar Wetlands

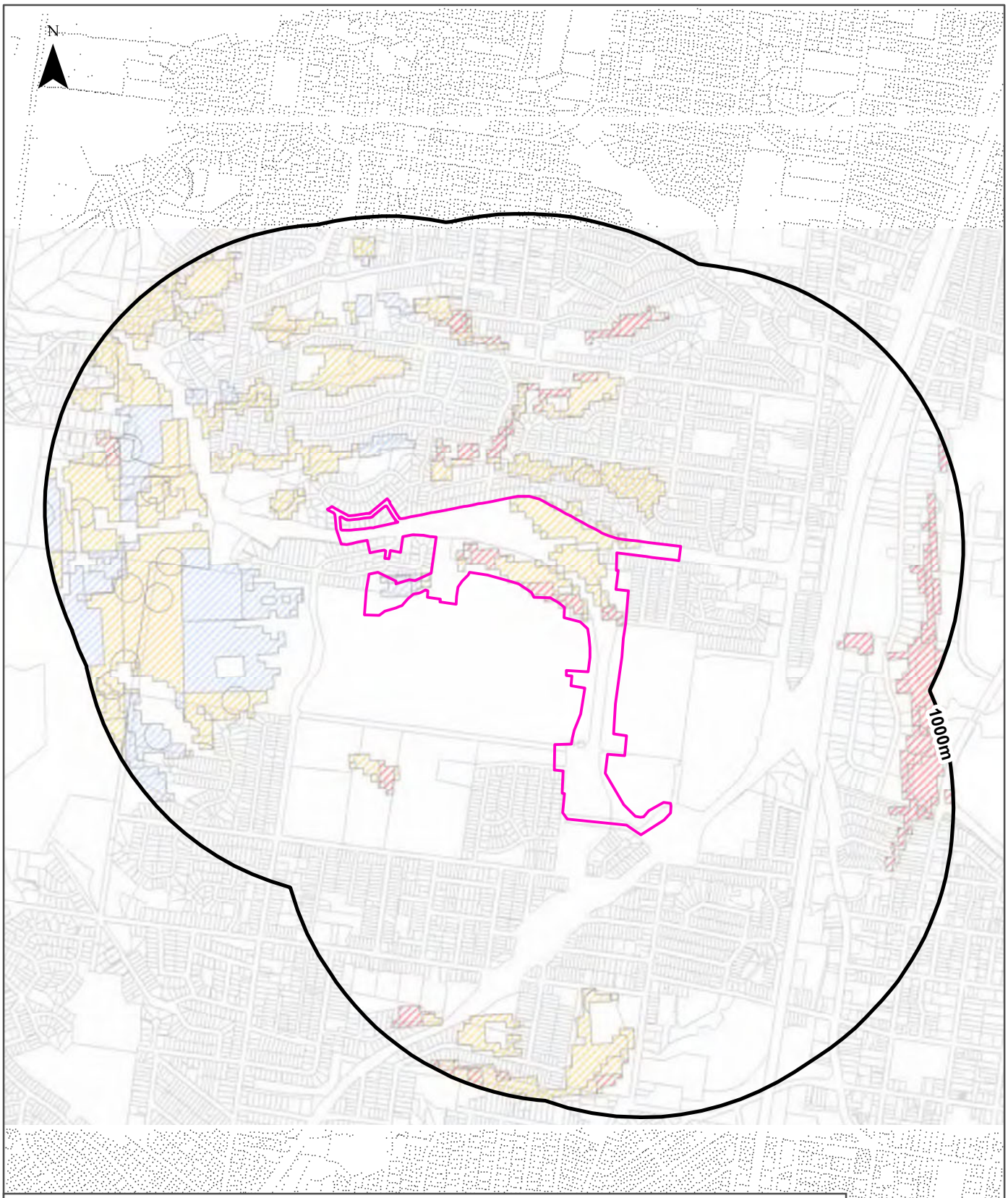
What Ramsar Wetland areas exist within the dataset buffer?

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 - Groundwater Dependent Ecosystems Atlas

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500



Legend

- Site Boundary
- Buffer 1000m
- Property Boundaries
- High potential GDE - from national assessment
- High potential GDE - from regional studies
- Moderate potential GDE - from national assessment
- Moderate potential GDE - from regional studies
- Low potential GDE - from national assessment
- Low potential GDE - from regional studies
- Known GDE - from regional studies
- Unclassified potential GDE - from national assessment
- Unclassified potential GDE - from regional studies

Scale: 0 100 200 400 600 800 1,000 Meters

Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2022

Coordinate System: GDA 1994 MGA Zone 56

Date: 11 January 2022

Ecological Constraints

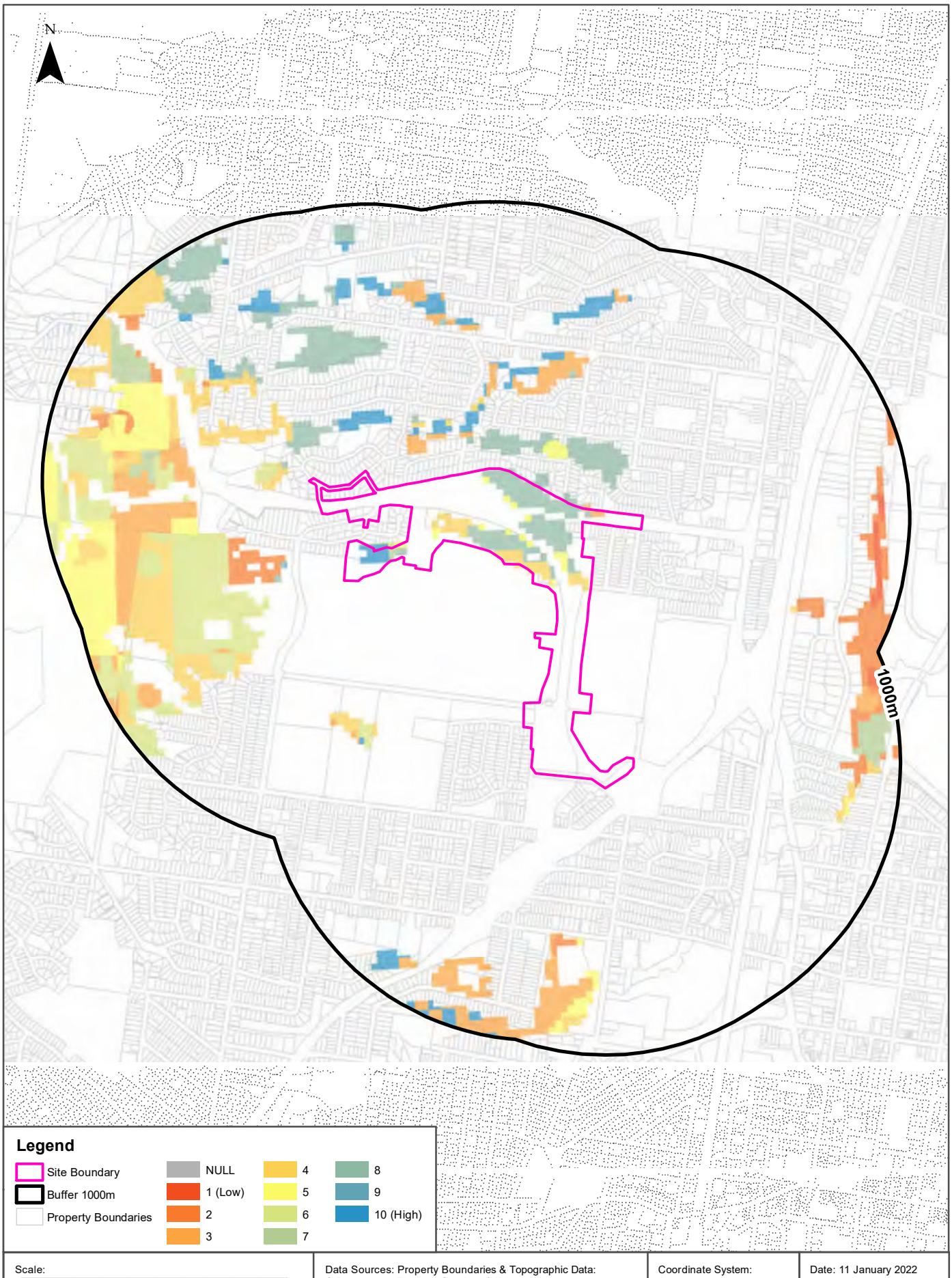
Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

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	High potential GDE - from regional studies	Deeply dissected sandstone plateaus.	Vegetation		0m	On-site
Terrestrial	Low potential GDE - from regional studies	Deeply dissected steeply sloping plateau margin in metamorphics and granite. Bounded in the west by the Great Escarpment.	Vegetation		0m	On-site
Terrestrial	Low potential GDE - from regional studies	Deeply dissected sandstone plateaus.	Vegetation		0m	On-site
Terrestrial	High potential GDE - from regional studies	Deeply dissected steeply sloping plateau margin in metamorphics and granite. Bounded in the west by the Great Escarpment.	Vegetation		818m	South East
Terrestrial	Moderate potential GDE - from regional studies	Deeply dissected steeply sloping plateau margin in metamorphics and granite. Bounded in the west by the Great Escarpment.	Vegetation		941m	North West

Ecological Constraints - Inflow Dependent Ecosystems Likelihood

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500



Ecological Constraints

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

Inflow Dependent Ecosystems Likelihood

Type	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
Terrestrial	8	Deeply dissected sandstone plateaus.	Vegetation		0m	On-site
Terrestrial	5	Deeply dissected sandstone plateaus.	Vegetation		0m	On-site
Terrestrial	10	Deeply dissected steeply sloping plateau margin in metamorphics and granite. Bounded in the west by the Great Escarpment.	Vegetation		0m	On-site
Terrestrial	4	Deeply dissected sandstone plateaus.	Vegetation		0m	On-site
Terrestrial	3	Deeply dissected sandstone plateaus.	Vegetation		0m	On-site
Terrestrial	7	Deeply dissected steeply sloping plateau margin in metamorphics and granite. Bounded in the west by the Great Escarpment.	Vegetation		0m	On-site
Terrestrial	10	Deeply dissected sandstone plateaus.	Vegetation		0m	On-site
Terrestrial	6	Deeply dissected sandstone plateaus.	Vegetation		0m	On-site
Terrestrial	2	Deeply dissected sandstone plateaus.	Vegetation		211m	West
Terrestrial	8	Deeply dissected steeply sloping plateau margin in metamorphics and granite. Bounded in the west by the Great Escarpment.	Vegetation		225m	West
Terrestrial	7	Deeply dissected sandstone plateaus.	Vegetation		567m	West
Terrestrial	9	Deeply dissected sandstone plateaus.	Vegetation		664m	North West
Terrestrial	6	Deeply dissected steeply sloping plateau margin in metamorphics and granite. Bounded in the west by the Great Escarpment.	Vegetation		838m	South East
Terrestrial	1	Deeply dissected sandstone plateaus.	Vegetation		857m	East

Inflow Dependent Ecosystems Likelihood Data Source: The Bureau of Meteorology

Ecological Constraints

Princes Motorway, Mt Ousley Interchange, North Wollongong, NSW 2500

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	Litoria littlejohni	Littlejohn's Tree Frog	Vulnerable	Not Sensitive	Vulnerable	
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	Anseranas semipalmata	Magpie Goose	Vulnerable	Not Sensitive	Not Listed	
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	Arenaria interpres	Ruddy Turnstone	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Artamus cyanopterus cyanopterus	Dusky Woodswallow	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Botaurus poiciloptilus	Australasian Bittern	Endangered	Not Sensitive	Endangered	
Animalia	Aves	Calidris acuminata	Sharp-tailed Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris alba	Sanderling	Vulnerable	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	Calidris tenuirostris	Great Knot	Vulnerable	Not Sensitive	Critically Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Callocephalon fimbriatum	Gang-gang Cockatoo	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Calonectris leucomelas	Streaked Shearwater	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calyptorhynchus banksii samueli	Red-tailed Black-Cockatoo (inland subspecies)	Vulnerable	Category 2	Not Listed	
Animalia	Aves	Calyptorhynchus lathami	Glossy Black-Cockatoo	Vulnerable	Category 2	Not Listed	
Animalia	Aves	Circus assimilis	Spotted Harrier	Vulnerable	Not Sensitive	Not Listed	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Aves	Climacteris picumnus victoriae	Brown Treecreeper (eastern subspecies)	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Coracina lineata	Barred Cuckoo-shrike	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	
Animalia	Aves	Diomedea gibsoni	Gibson's Albatross	Vulnerable	Not Sensitive	Vulnerable	
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	Fregata ariel	Lesser Frigatebird	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
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	Grantiella picta	Painted Honeyeater	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Aves	Gygis alba	White Tern	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	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	Ixobrychus flavicollis	Black Bittern	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Lathamus discolor	Swift Parrot	Endangered	Category 3	Critically Endangered	
Animalia	Aves	Limicola falcinellus	Broad-billed Sandpiper	Vulnerable	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
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	Macronectes halli	Northern Giant-Petrel	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Aves	Melithreptus gularis gularis	Black-chinned Honeyeater (eastern subspecies)	Vulnerable	Not Sensitive	Not Listed	
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

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Aves	Numenius phaeopus	Whimbrel	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Oceanites oceanicus	Wilson's Storm-Petrel	Not Listed	Not Sensitive	Not Listed	JAMBA
Animalia	Aves	Onychoprion anaethetus	Bridled Tern	Not Listed	Not Sensitive	Not Listed	CAMBA;JAMBA
Animalia	Aves	Onychoprion fuscata	Sooty Tern	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Oxyura australis	Blue-billed Duck	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Pachycephala olivacea	Olive Whistler	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	Pezoporus wallicus wallicus	Eastern Ground Parrot	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Phaethon lepturus	White-tailed Tropicbird	Not Listed	Not Sensitive	Not Listed	CAMBA;JAMBA
Animalia	Aves	Phoebetria fusca	Sooty Albatross	Vulnerable	Not Sensitive	Vulnerable	
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 anthopeplus monarchoides	Regent Parrot (eastern subspecies)	Endangered	Category 3	Vulnerable	
Animalia	Aves	Polytelis swainsonii	Superb Parrot	Vulnerable	Category 3	Vulnerable	
Animalia	Aves	Pterodroma leucoptera leucoptera	Gould's Petrel	Vulnerable	Not Sensitive	Endangered	
Animalia	Aves	Ptilinopus magnificus	Wompoo Fruit-Dove	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Ptilinopus regina	Rose-crowned Fruit-Dove	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Ptilinopus superbus	Superb Fruit-Dove	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Puffinus assimilis	Little Shearwater	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Stercorarius parasiticus	Arctic Jaeger	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Stercorarius pomarinus	Pomarine Jaeger	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Sterna hirundo	Common Tern	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Sternula albifrons	Little Tern	Endangered	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Stictonetta naevosa	Freckled Duck	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Sula leucogaster	Brown Booby	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Thalassarche bulleri	Buller's Albatross	Not Listed	Not Sensitive	Vulnerable	
Animalia	Aves	Thalassarche cauta	Shy Albatross	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Aves	Thalassarche impavida	Campbell Albatross	Not Listed	Not Sensitive	Vulnerable	
Animalia	Aves	Thalassarche melanophris	Black-browed Albatross	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Aves	Thalassarche salvini	Salvin's Albatross	Not Listed	Not Sensitive	Vulnerable	
Animalia	Aves	Thalasseus bergii	Crested Tern	Not Listed	Not Sensitive	Not Listed	JAMBA

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Aves	Thinornis cucullatus cucullatus	Eastern Hooded Dotterel	Critically Endangered	Not Sensitive	Vulnerable	
Animalia	Aves	Tringa brevipes	Grey-tailed Tattler	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Tringa incana	Wandering Tattler	Not Listed	Not Sensitive	Not Listed	JAMBA
Animalia	Aves	Tringa nebularia	Common Greenshank	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Tringa stagnatilis	Marsh Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Tyto longimembris	Eastern Grass Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Tyto novaehollandiae	Masked Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Tyto tenebricosa	Sooty Owl	Vulnerable	Category 3	Not Listed	
Animalia	Mammalia	Arctocephalus pusillus doriferus	Australian Fur-seal	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Cercartetus nanus	Eastern Pygmy-possum	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Dasyurus maculatus	Spotted-tailed Quoll	Vulnerable	Not Sensitive	Endangered	
Animalia	Mammalia	Dasyurus viverrinus	Eastern Quoll	Endangered	Not Sensitive	Endangered	
Animalia	Mammalia	Dugong dugon	Dugong	Endangered	Not Sensitive	Not Listed	
Animalia	Mammalia	Eubalaena australis	Southern Right Whale	Endangered	Not Sensitive	Endangered	
Animalia	Mammalia	Falsistrellus tasmaniensis	Eastern False Pipistrelle	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Megaptera novaeangliae	Humpback Whale	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	Micronomus norfolkensis	Eastern Coastal Free-tailed Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Miniopterus australis	Little Bent-winged Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Miniopterus orianae oceanensis	Large Bent-winged Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Myotis macropus	Southern Myotis	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Petauroides volans	Greater Glider	Not Listed	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	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	Physeter macrocephalus	Sperm Whale	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Pseudomys delicatulus	Delicate Mouse	Endangered	Not Sensitive	Not Listed	
Animalia	Mammalia	Pteropus poliocephalus	Grey-headed Flying-fox	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	Scoteanax rueppellii	Greater Broad-nosed Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Reptilia	Aspidites ramsayi	Woma	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	Eretmochelys imbricata	Hawksbill Turtle	Not Listed	Not Sensitive	Vulnerable	
Animalia	Reptilia	Hoplocephalus bungaroides	Broad-headed Snake	Endangered	Category 2	Vulnerable	
Animalia	Reptilia	Uvidicolus sphyrurus	Border Thick-tailed Gecko	Vulnerable	Not Sensitive	Vulnerable	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Reptilia	Varanus rosenbergi	Rosenberg's Goanna	Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Acacia baueri subsp. aspera		Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Amperea xiphoclada var. pedicellata		Presumed Extinct	Not Sensitive	Extinct	
Plantae	Flora	Arthropteris palisotii	Lesser Creeping Fern	Endangered	Category 3	Not Listed	
Plantae	Flora	Cynanchum elegans	White-flowered Wax Plant	Endangered	Not Sensitive	Endangered	
Plantae	Flora	Epacris purpurascens var. purpurascens		Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Eucalyptus largeana	Craven Grey Box	Endangered	Not Sensitive	Endangered	
Plantae	Flora	Eucalyptus nicholii	Narrow-leaved Black Peppermint	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Eucalyptus scoparia	Wallangarra White Gum	Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	Gossia acmenoides	Scrub Ironwood	Endangered Population	Not Sensitive	Not Listed	
Plantae	Flora	Persoonia glaucescens	Mittagong Geebung	Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	Persoonia hirsuta	Hairy Geebung	Endangered	Category 3	Endangered	
Plantae	Flora	Pultenaea aristata	Prickly Bush-pea	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Rhodamnia rubescens	Scrub Turpentine	Critically Endangered	Not Sensitive	Critically Endangered	
Plantae	Flora	Senna acclinis	Rainforest Cassia	Endangered	Not Sensitive	Not Listed	
Plantae	Flora	Solanum celatum		Endangered	Not Sensitive	Not Listed	
Plantae	Flora	Syzygium paniculatum	Magenta Lilly Pilly	Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	Zieria granulata	Illawarra Zieria	Endangered	Not Sensitive	Endangered	

Data does not include NSW category 1 sensitive species.

Location Confidences

Where Lotsearch has had to georeference features from supplied addresses, a location confidence has been assigned to the data record. This indicates a confidence to the positional accuracy of the feature. Where applicable, a code is given under the field heading “LC” or “LocConf”. These codes lookup to the following location confidences:

LC Code	Location Confidence
Premise Match	Georeferenced to the site location / premise or part of site
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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12. These Terms are subject to New South Wales law.

APPENDIX

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TRAFFIC INCIDENT REGISTER

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Id	Date	Incident Description	Type	Sub-type	Location Description	Direction	Affected Lanes
216	03-Jan-15	Hazard: Debris Sledgehammer	Hazard	Debris	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
122	05-Jan-15	Police: Police	Breakdown	Breakdown	MOUNT OUSLEY RD NORTH BOUN UNDER T PLEASANT OVERPASS MOUNT OUSLEY 2519 WOLLO	BOTH DIRECTIONS	ALL LANES
238	09-Jan-15	Type : Traffic Duties (094)Status : Non	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
279	12-Jan-15	Hazard: Misc Hazrd	Hazard	Misc Hazrd	MOUNT OUSLEY RD BOTTOM OF MT OUSLEY RD NR SAFETY RAMP -S MOUNT OUSLEY 2519 W	SOUTH	ALL LANES
303	12-Jan-15	Hazard: Misc Hazrd	Hazard	Misc Hazrd	MOUNT OUSLEY RD SAFETY RAMP MT OUSLEY NEW MOUNT PLEASANT RD MOUNT OUSLEY 251	BOTH DIRECTIONS	ALL LANES
294	13-Jan-15	LARGE BOXES	Hazard	Misc Hazrd	MOUNT OUSLEY RD SOUTH BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
225	15-Jan-15	HAZARD - DEBRIS	Hazard	Debris	MOUNT OUSLEY RD LANE 3 - N BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
132	16-Jan-15	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD N BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
95	18-Jan-15	B/D car - lane 1	Breakdown	Car	MOUNT OUSLEY RD nth of OLD MT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) N	NORTH	ONE LANE
150	18-Jan-15	B/D car	Breakdown	Car	PRINCES MTWY x MOUNT OUSLEY RD MOUNT OUSLEY 3/4 OF THE WAY UP MOUNT OUSLEY MOU	NORTH	ONE LANE
235	22-Jan-15	Type : Driving Complaint (022)Status :	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	BREAKDOWN
637	22-Jan-15	Police: Police	Police	Police	MOUNT OUSLEY RD F6 MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	ANY DIRECTION	ALL LANES
121	25-Jan-15	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
209	26-Jan-15	BREAKDOWN - CAR	Breakdown	Car	MOUNT OUSLEY RD JUST PAST NEW MT PLEASANT OVERPASS - NTH MOUNT OUSLEY 2519 W	NORTH	ONE LANE
122	29-Jan-15	Breakdown Truck	Breakdown	Truck	MOUNT OUSLEY RD NTH BND - 300M STH OF THE 1ST ARRESTER B MOUNT OUSLEY 2519 W	NORTH	ONE LANE
519	29-Jan-15	Type : Concern 4 Welfare (017)Status :	Breakdown	Breakdown	MOUNT OUSLEY RD NR THE SPEED CAMERA N OF MT OUSLEY ON MOUNT OUSLEY 2519 WOLL	NORTH	ONE LANE
130	01-Feb-15	B/D Car/Caravan - lane 1	Breakdown	Car	PRINCES MTWY past NEW MOUNT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NS	NORTH	ONE LANE
609	04-Feb-15	Type : Accident (002)Status : None Spec	Crash	Crash	MOUNT OUSLEY RD >>>NTH BND AFTER THE UNI MOUNT OUSLEY 2519 WOLLONGONG (LGA)	NORTH	TWO LANES
313	07-Feb-15	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD NBND MIDDLE LANE/ NEW MT PLEASANT RD MOUNT OUSLEY 2519 WOLL	BOTH DIRECTIONS	ALL LANES
141	08-Feb-15	delays	Hazard	Misc Hazrd	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
80	13-Feb-15	BREAKDOWN CAR - LANE 1	Breakdown	Car	MOUNT OUSLEY RD N BOUND LANE 1 MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
365	13-Feb-15	BREAKDOWN - M/CYC	Crash	Motorcycle	MOUNT OUSLEY RD NTH BOUND BEFORE MT PLEASANT OVERPASS MOUNT OUSLEY 2519 WOLL	BOTH DIRECTIONS	ONE LANE
204	19-Feb-15	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD 500M FROM TOP OF PASS NBOUND MOUNT OUSLEY 2519 WOLLONGONG (L	BOTH DIRECTIONS	ALL LANES
279	20-Feb-15	Truck B/Down Mt Ousley	Breakdown	Truck	MOUNT OUSLEY RD THREE QUARTER WAY UP MT OUSLEY-N BND MOUNT OUSLEY 2519 WOLLO	NORTH	ONE LANE
367	20-Feb-15	Type : Traffic Incident (064)Status : N	Breakdown	Truck	MOUNT OUSLEY RD S BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ONE LANE
199	22-Feb-15	Accident: Car	Crash	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
143	23-Feb-15	BREAKDOWN - TRUCK	Police	Traffic	MOUNT OUSLEY RD NTH BND LANE 1 1 KN STH OF CLIVE BI MOUNT OUSLEY 2519 W	NORTH	ONE LANE
56	25-Feb-15	CAR B/D	Breakdown	Car	MOUNT OUSLEY RD N BND LANE 1 MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
401	26-Feb-15	Type : Accident (002)Status : See Infor	Crash	Car	MOUNT OUSLEY RD BOTTOM OF MT OUSLEY HILL MOUNT OUSLEY 2519 WOLLONGONG (LGA)	BOTH DIRECTIONS	ALL LANES
77	27-Feb-15	Type : Traffic Incident (064)Status : N	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
23	28-Feb-15	Hazard: Misc Hazrd	Hazard	Misc Hazrd	MOUNT OUSLEY RD JUST NR THE TURNOFF TO UNIVERSITY MOUNT OUSLEY RD EXIT 62 K	BOTH DIRECTIONS	ALL LANES
36	04-Mar-15	Type : Driving Complaint (022)Status :	Breakdown	Truck	MOUNT OUSLEY RD N BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
298	04-Mar-15	CAR BREAKDOWN	Breakdown	Breakdown	MT OUSLEY RD @ MOUNT OUSLEY	NORTH	BREAKDOWN
302	04-Mar-15	PED ON M1	Police	Traffic	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
329	04-Mar-15	TRUCK BREAKDOWN	Breakdown	Breakdown	MT OUSLEY RD @ MOUNT OUSLEY	NORTH	ONE LANE
346	04-Mar-15	BREAKDOWN - TRUCK	Breakdown	Truck	MOUNT OUSLEY RD / CLIVE BISSELL DR / CATARACT 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
490	06-Mar-15	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD N BND - LANE 1 NEW MOUNT PLEASANT MOUNT OUSLEY 2519 WOLLONG	NORTH	ONE LANE
204	07-Mar-15	BREAKDOWN - CAR	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
177	08-Mar-15	Hazard: Misc Hazrd	Hazard	Misc Hazrd	MOUNT OUSLEY RD CLIVE BLISSEL MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
182	14-Mar-15	MINI BUS B/D	Breakdown	Bus	MOUNT OUSLEY RD/400M NTH OF OLD MOUNT OUSLEY RD/BOTTOM OF MOUNT OUSLEY	NORTH	ONE LANE
297	14-Mar-15	Type : Driving Complaint (022)Status :	Breakdown	Car	MOUNT OUSLEY RD N BOUND X MT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LGA)	BOTH DIRECTIONS	ALL LANES
258	15-Mar-15	COWS ON ROAD	Hazard	Animals	MOUNT OUSLEY RD/STH OF NEW MT PLESANT RD OVERPASS/MOUNT OUSLEY	NORTH	BREAKDOWN
146	17-Mar-15	MVA Mt Ousley	Crash	Crash	MT OUSLEY RD/MOUNT OUSLEY	SOUTH	ONE LANE
316	17-Mar-15	MVA Mt Ousley	Crash	Crash	MOUNT OUSLEY RD JUST N OF WOLLONGONG S BND COMING DOWN MOUNT OUSLEY 2519 WOL	SOUTH	ONE LANE
288	19-Mar-15	TRUCK B/D	Breakdown	Truck	MOUNT OUSLEY RD/KEIRAVILLE	BOTH DIRECTIONS	ALL LANES
361	19-Mar-15	Type : Accident (002)Status : None Spec	Crash	Car	MOUNT OUSLEY RD STH BND APPROX 1KM NTH OF MT PLEASANT TU MOUNT OUSLEY 2519 W	BOTH DIRECTIONS	ALL LANES
344	20-Mar-15	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD STH BND BTW NEW MT PLEASANT RD AND UNI MOUNT OUSLEY 2519 WOL	SOUTH	ALL LANES
188	22-Mar-15	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD north bound MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
174	26-Mar-15	Type : Traffic Incident (064)Status : N	Breakdown	Car	MOUNT OUSLEY RD M1 MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
101	27-Mar-15	BREAKDOWN - CAR	Breakdown	Car	MOUNT OUSLEY RD M1 KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
301	02-Apr-15	BREAKDOWN TRUCK	Breakdown	Truck	MOUNT OUSLEY RD S BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	BREAKDOWN
366	02-Apr-15	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD NTH BND - JUST B4 NEW MT PLEASANT RD NEW PLEASANT MOUNT OUSLEY	ANY DIRECTION	ALL LANES
422	02-Apr-15	"REF 354"Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD TRUCK BROKEN DOWN - 200M FROM CLIVE BISS MOUNT OUSLEY 2519 W	BOTH DIRECTIONS	ALL LANES
298	03-Apr-15	"REF 294"Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD NORTH BOUND NR MT PLEASANT OVER PASS MOUNT OUSLEY 2519 WOLLO	BOTH DIRECTIONS	ALL LANES
23	06-Apr-15	BREAKDOWN - CAR	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
330	10-Apr-15	MVA SINGLE CAR	Crash	Car	MOUNT OUSLEY RD CLIVE BISSELL DVE CATARACT WOLLONGONG (LGA) NSW	NORTH AND SOUTH	ALL LANES
109	13-Apr-15	BREAKDOWN	Breakdown	Breakdown	MOUNT OUSLEY RD BTW PICTON RD & THE DIPPER MOUNT OUSLEY 2519 WOLLONGONG (LGA	NORTH	ALL LANES
165	14-Apr-15	BREAKDOWN - RMS TRUCK	Breakdown	Truck	M1 MTWY/MOUNT OUSLEY	NORTH	ALL LANES
405	14-Apr-15	BREAKDOWN - TRUCK	Breakdown	Truck	M1 MTWY/MOUNT OUSLEY	NORTH	ALL LANES
299	16-Apr-15	BREAKDOWN - CAR	Breakdown	Breakdown	MOUNT OUSLEY RD NTHBND 500M NTH OF OLD MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLL	NORTH	ALL LANES
302	16-Apr-15	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
158	17-Apr-15	BREAKDOWN - CAR	Breakdown	Breakdown	M1 PRINCES MWY (MOUNT OUSLEY RD) NTHBND 500M STH OF NEW MT PLEASANT RD MOUNT OUS	NORTH	ALL LANES
193	18-Apr-15	Hazard: Misc Hazrd	Hazard	Misc Hazrd	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
44	20-Apr-15	BREAKDOWN - CAR.	Breakdown	Car	MOUNT OUSLEY RD LANE 1 NB MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE

Id	Date	Incident Description	Type	Sub-type	Location Description	Direction	Affected Lanes
319	20-Apr-15	Hazard: Debris	Hazard	Debris	MOUNT OUSLEY RD AT VERY OF BOTTOM HILL. MOUNT OUSLEY 2519 WOLLONGONG (LGA)	NORTH	ALL LANES
981	20-Apr-15	Accident: Car	Crash	Car	MOUNT OUSLEY RD BOTTOM OF MT OUSLEY MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
206	26-Apr-15	CAR B/D	Breakdown	Car	MOUNT OUSLEY RD FAST LANE OPP UNI PRINCES HWY MOUNT OUSLEY 2519 WOLLONGONG	SOUTH	ONE LANE
257	27-Apr-15	B/down Car	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
129	29-Apr-15	MVA 2 CARS	Crash	Car	MOUNT OUSLEY RD UNDER THE NEW MOUNT PLEASANT RD OPASS - NEW MOUNT PLEASANT RD	SOUTH	ALL LANES
264	29-Apr-15	BREAKDOWN TRUCK	Breakdown	Truck	MOUNT OUSLEY RD 400M FROM BOTTOM MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
521	30-Apr-15	BREAKDOWN - TRUCK	Breakdown	Truck	MOUNT OUSLEY RD STH BND MT O MT PLEASANT MOUNT OUSLEY 2519 WOLLONGONG (LGA)	SOUTH	ALL LANES
418	02-May-15	B/D car	Breakdown	Car	MOUNT OUSLEY RD just past NEW MT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LGA	NORTH	ALL LANES
135	05-May-15	MVC MCYLE (CCTV1322)	Hazard	Misc Hazrd	MOUNT OUSLEY RD ON RAMP FROM NORTHERN DIST KEIRAVILLE 2500 WOLLONGONG (LGA)	BOTH DIRECTIONS	ALL LANES
135	08-May-15	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD >> N MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
320	11-May-15	ELDERLY MALE WALKING ON SIDE OF MWY	Hazard	Pedestrian	M1 MT OUSLEY RD/MOUNT OUSLEY	NORTH	ALL LANES
321	11-May-15	HAZARD - PEDESTRIAN	Hazard	Pedestrian	MOUNT OUSLEY RD NORTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
315	12-May-15	Tree into House at Mount Ousley	Hazard	Misc Hazrd	M1 MTWY/MOUNT OUSLEY	SOUTH	ALL LANES
413	13-May-15	BUS BREAKDOWN	Breakdown	Bus	MOUNT OUSLEY RD NTH BOUND LANE 1 MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
451	19-May-15	Accident: Car	Crash	Car	MOUNT OUSLEY RD /PICTON RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
111	20-May-15	B/Down	Breakdown	Breakdown	MOUNT OUSLEY RD STH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ONE LANE
634	22-May-15	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD LN 1 OF 3 NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	ANY DIRECTION	ALL LANES
167	31-May-15	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD SAFETY RAMP AT BOTTOM OLD MT OUSLEY RD MOUNT OUSLEY 2519 WO	BOTH DIRECTIONS	ALL LANES
14	05-Jun-15	Accident: Truck	Crash	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	BREAKDOWN
18	06-Jun-15	Type : Driving Complaint (022)Status :	Police	Police	M1 MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
118	06-Jun-15	Hazard: Misc Hazrd	Hazard	Misc Hazrd	MOUNT OUSLEY RD LANE 1 OF 3 MT OUSLEY N BND MOUNT OUSLEY 2519 WOLLONGONG (LG	BOTH DIRECTIONS	ALL LANES
87	08-Jun-15	Breakdown (car) Mount Ousley	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ONE LANE
57	11-Jun-15	BREAKDOWN - TRUCK (CAMERA 486)	Breakdown	Truck	M1 MOUNT OUSLEY RD/NEAR TRUCK ARRESTOR BED MOUNT OUSLEY 2519 WOLLONGONG (LGA)	SOUTH	ONE LANE
89	14-Jun-15	Breakdown (car) Mount Ousley	Breakdown	Car	MOUNT OUSLEY RD N BND ABOUT 50M S OF MOUNT PLEASANT OVER MOUNT OUSLEY 2519 W	NORTH	ONE LANE
332	15-Jun-15	Type : Driving Complaint (022)Status :	Breakdown	Truck	MOUNT OUSLEY RD >>SYDNEY NTH BND LANE 1 MT PLEASANT RD MOUNT OUSLEY 2519 W	NORTH	ONE LANE
335	15-Jun-15	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
411	19-Jun-15	CAR B/D	Breakdown	Car	MOUNT OUSLEY RD IN NARROW BREAKDOWN LANE MOUNT OUSLEY 2519 WOLLONGONG (LGA)	BOTH DIRECTIONS	ALL LANES
19	21-Jun-15	DEER ON/OR NEAR ROAD	Hazard	Animals	MOUNT OUSLEY RD NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
126	22-Jun-15	B/DOWN TRUCK	Breakdown	Truck	MOUNT OUSLEY RD N BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
137	25-Jun-15	BREAKDOWN CAR	Breakdown	Car	M1 MTWY(MT OUSLEY RD)/OLD MT OULSEY RD /MOUNT OUSLEY	NORTH	ALL LANES
138	25-Jun-15	SEE INCIDENT 137	Breakdown	Car	MOUNT OUSLEY RD JUST NTH OF UNI - STH OF MT PLEASANT - MOUNT OUSLEY 2519 W	BOTH DIRECTIONS	ALL LANES
563	26-Jun-15	CAR ON SAFETY RAMP	Breakdown	Car	MOUNT OUSLEY RD/M1 PRINCES MTWY/MOUNT OUSLEY	SOUTH	BREAKDOWN
312	29-Jun-15	TRUCK B/D	Breakdown	Truck	MT OUSLEY RD/MOUNT OUSLEY	NORTH	ONE LANE
393	29-Jun-15	CAR PARKED IN SAFETY RAMP	Hazard	Misc Hazrd	MOUNT OUSLEY RD SAFETY RAMP MOUNT OUSLEY RD EXIT KEIRAVILLE 2500 WOLLONGONG	BOTH DIRECTIONS	ALL LANES
313	30-Jun-15	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
367	30-Jun-15	BREAKDOWN - TRUCK	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
459	30-Jun-15	Hazard: Misc Hazrd	Hazard	Misc Hazrd	MOUNT OUSLEY RD NTH BND LANE 3 NEW MOUNT PLEASANT MOUNT OUSLEY 2519 WOLLONG	BOTH DIRECTIONS	ALL LANES
489	30-Jun-15	DEBRIS Truck Mud Guard	Hazard	Debris	M1 MTWY/MOUNT OUSLEY RD NORTH WOLLONGONG	SOUTH	ALL LANES
502	30-Jun-15	Hazard: Debris	Hazard	Debris	M1 STH BOUND MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
427	01-Jul-15	BREAKDOWN CAR	Breakdown	Car	MOUNT OUSLEY RD LN 1 NTH BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
83	02-Jul-15	5 CAR MVA	Crash	Car	MOUNT OUSLEY RD NTH BND NR BELLAMBI CREEK MOUNT OUSLEY 2519 WOLLONGONG (LGA)	NORTH	ONE LANE
477	02-Jul-15	MVA 6 CARS	Crash	Car	MOUNT OUSLEY RD S BND 1KM N OF THE SAFETY RAMP MOUNT OUSLEY 2519 WOLLONGONG	SOUTH	ALL LANES
323	03-Jul-15	Hazard: Fluid Spl	Hazard	Fluid Spl	MOUNT OUSLEY RD NTH BD 1KM NTH OF PI RD MOUNT OUSLEY 2519 WOLLONGONG (LGA)	BOTH DIRECTIONS	ALL LANES
72	04-Jul-15	Type : Driving Complaint (022)Status :	Hazard	Debris	MOUNT OUSLEY RD NR OVERPASS NORTH BOUND/ NEW MOUNT PLEASANT RD MOUNT OUSLEY	BOTH DIRECTIONS	ALL LANES
230	05-Jul-15	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NEW MT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	EAST	ALL LANES
260	06-Jul-15	4WD AND HORSE FLOAT B/D	Breakdown	Truck	MOUNT OUSLEY RD NEW MOUNT PLEASENT RD OVERPASS MOUNT OUSLEY 2519 WOLLONGONG (	NORTH	ONE LANE
403	06-Jul-15	CAR B/D	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
304	08-Jul-15	Dead Fox	Hazard	Animals	MT OUSLEY RD, /MOUNT OUSLEY	NORTH AND SOUTH	ALL LANES
215	11-Jul-15	DEER ON ROADWAY	Hazard	Animals	MOUNT OUSLEY RD AT START OF MT OUSLEY N BND/ MOUNT OUSLEY 2519 WOLLONGONG (L	NORTH	ALL LANES
174	12-Jul-15	Hazard: Misc Hazrd	Hazard	Misc Hazrd	MOUNT OUSLEY RD M WALKING UP MT OUSLEY MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	ANY DIRECTION	ALL LANES
73	13-Jul-15	CAR HIT DEBRIS	Crash	Car	MOUNT OUSLEY RD AT THE BOTTOM NR THE SPEED CAMERA - STH MOUNT OUSLEY 2519 WO	SOUTH	ALL LANES
149	13-Jul-15	TREE DOWN	Hazard	Debris	MT OUSLEY RD/100M NTH OF THE SAFETY RAMP/MOUNT OUSLEY	SOUTH	ONE LANE
174	13-Jul-15	Hazard: Debris	Hazard	Debris	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
313	13-Jul-15	Breakdown: Truck	Breakdown	Truck	M1 PRINCES MTWY(MT OUSLEY RD)/NEW MOUNT PLEASANT RD/MOUNT OUSLEY	NORTH	ONE LANE
322	13-Jul-15	Breakdown: Truck REFTO 313	Breakdown	Truck	MOUNT OUSLEY RD NTH BND NEW MT PLEASANT OVERPASS MOUNT OUSLEY 2519 WOLLONGO	BOTH DIRECTIONS	ALL LANES
16	19-Jul-15	TRUCK BREAKDOWN.	Breakdown	Truck	MOUNT OUSLEY RD N BND 150 -200M SOUTH OF CLIVE BISSELL D MOUNT OUSLEY 2519 W	NORTH	ONE LANE
90	19-Jul-15	B/D Truck - lane 1	Breakdown	Truck	M1 MTWY x MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
302	22-Jul-15	Breakdown (truck) Mount Ousley	Breakdown	Truck	MOUNT OUSLEY RD NB MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
19	23-Jul-15	Truck B/Down	Breakdown	Truck	M1/ MT OUSLEY RD/MOUNT OUSLEY	NORTH	TWO LANES
140	23-Jul-15	TRUCK BREAKDOWN	Breakdown	Truck	M1 MWY - MOUNT OUSLEY RD NTH BND PAST MT PLEASANT OVERPASS MOUNT OUSLEY 2519	NORTH	ONE LANE
270	24-Jul-15	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD 200M BEFORE NEW MT PLEASANT RD LANE 1 N MOUNT OUSLEY 2519 WO	NORTH	ALL LANES
519	24-Jul-15	LANE 1 OF 3 CLOSED - POLICE AND FB ON SC	Hazard	Misc Hazrd	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
65	30-Jul-15	BREAKDOWN - CAR & CARAVAN	Breakdown	Car	MOUNT OUSLEY RD 1KM PAST UNI >>> NTH BND KEIRAVILLE 2500 WOLLONGONG (LGA) N	NORTH	ALL LANES
426	03-Aug-15	Type : Driving Complaint (022)Status :	Breakdown	Truck	MOUNT OUSLEY RD STH BOUND 500 M STH OF "FISHBOWL" MOUNT OUSLEY 2519 WOLLONGO	SOUTH	ONE LANE

Id	Date	Incident Description	Type	Sub-type	Location Description	Direction	Affected Lanes
464	04-Aug-15	Type : Driving Complaint (022)Status :	Breakdown	Truck	MOUNT OUSLEY RD NTH BOUND - JUST B4 CLIVE BISSOL DR MOUNT OUSLEY 2519 WOLLO	NORTH	ONE LANE
41	05-Aug-15	MVA SINGLE CAR	Crash	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
337	05-Aug-15	BREAKDOWN CAR	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
56	09-Aug-15	Police: Traffic	Police	Traffic	MOUNT OUSLEY RD STH BND 200M NTH OF MT PLEASANT OVERPA MOUNT OUSLEY 2519 WO	ANY DIRECTION	ALL LANES
355	12-Aug-15	MVC OVERTURNED UTE	Crash	Car	MOUNT OUSLEY RD STH BND BEFORE PICTON TURNOFF MOUNT OUSLEY 2519 WOLLONGONG (	SOUTH	ALL LANES
335	13-Aug-15	B/D CAR	Breakdown	Car	MOUNT OUSLEY RD LANE 2 -- S BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ONE LANE
120	16-Aug-15	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
441	18-Aug-15	B/D CAR	Breakdown	Car	M1 MTWY/MT OUSLEY RD/MOUNT OUSLEY	NORTH	ONE LANE
103	21-Aug-15	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD N BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
327	21-Aug-15	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD M1 BOTTOM OF MT OUSLEY MOUNT OUSLEY 2519 WOLLONGONG (LGA) N	NORTH	ONE LANE
189	23-Aug-15	Unknown: Unknown	Breakdown	Car	MOUNT OUSLEY RD N BND LANE 1 M1 MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
48	25-Aug-15	TREE DOWN	Hazard	Debris	MOUNT OUSLEY RD/300m SOUTH OF CLIVE BISSELL DR / MOUNT OUSLEY NEAR EMERGENCY BAY	NORTH	ONE LANE
235	28-Aug-15	Police: PoliceOptn	Police	Police	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
501	01-Sep-15	Accident: Accident	Crash	Crash	MOUNT OUSLEY RD NTH BOUND BELLAMBI CREEK MOUNT OUSLEY 2519 WOLLONGONG (LGA)	BOTH DIRECTIONS	ALL LANES
119	04-Sep-15	TRUCK B/D	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
237	04-Sep-15	TRUCK B/D	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
139	12-Sep-15	Hazard: Misc Hazrd	Hazard	Misc Hazrd	MOUNT OUSLEY RD S BND >> MT OUSLEY MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
60	13-Sep-15	Fire: Vehicle	Fire	Vehicle	MOUNT OUSLEY RD TOP OF MT OUSLEY/ MOUNT KEIRA MOUNT OUSLEY 2519 WOLLONGONG	BOTH DIRECTIONS	ALL LANES
303	15-Sep-15	Type : Driving Complaint (022)Status :	Breakdown	Breakdown	MOUNT OUSLEY RD STH BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ONE LANE
52	21-Sep-15	ACCIDENT - 3 CARS	Crash	Car	MOUNT OUSLEY RD NTHBND 150M NTH OF NEW MOUNT PLEASANT RD MOUNT OUSLEY 2519 WO	NORTH	TWO LANES
424	25-Sep-15	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
267	06-Oct-15	BREAKDOWN - SEMI	Breakdown	Truck	MOUNT OUSLEY RD LANE 2 - NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
451	07-Oct-15	Type : Driving Complaint (022)Status :	Hazard	Misc Hazrd	MOUNT OUSLEY RD N BND LANE 1 MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
40	08-Oct-15	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
487	09-Oct-15	COW ON ROAD	Hazard	Animals	MOUNT OUSLEY RD/500M NTH OF RMS INSPECTION STATION/MOUNT OUSLEY	SOUTH	ALL LANES
172	10-Oct-15	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NTH BND HALF UP MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
130	12-Oct-15	REF #134 Accident: Car	Crash	Car	MOUNT OUSLEY RD NEW MT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	TWO LANES
230	12-Oct-15	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NTH BND NEW MT PLEASANT MOUNT OUSLEY 2519 WOLLONGONG (LGA)	BOTH DIRECTIONS	ALL LANES
230	13-Oct-15	BREAKDOWN - CAR	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
466	13-Oct-15	BREAKDOWN CAR	Breakdown	Car	M1 MOUNT OUSLEY RD / NEW MT PLEASANT RD OVERPASS / MOUNT OUSLEY 2519 WOLLONGON	NORTH	ONE LANE
546	15-Oct-15	HAZARD LIFTED GRATE	Hazard	Misc Hazrd	MOUNT OUSLEY RD/M1 MTWY/MOUNT OUSLEY	SOUTH	ONE LANE
359	22-Oct-15	VEH IN SAFETY RAMP	Crash	Truck	MOUNT OUSLEY RD STH BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ONE LANE
599	22-Oct-15	Hazard: Animals	Hazard	Animals	MOUNT OUSLEY RD NEW MT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
710	22-Oct-15	Type : Animal Complaint (006)Status : C	Hazard	Animals	MOUNT OUSLEY RD NEAR TRUCK INSPECTION BAY NEW MT PLEASANT RD MOUNT OUSLEY 25	BOTH DIRECTIONS	ALL LANES
33	23-Oct-15	Type : Traffic Incident (064)Status : N	Breakdown	Truck	MOUNT OUSLEY RD NORTHBOUND NEW MT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG	NORTH	ONE LANE
285	24-Oct-15	Hazard: Animals	Hazard	Animals	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
467	26-Oct-15	Type : Animal Complaint (006), Driving C	Hazard	Animals	MOUNT OUSLEY RD S BOUND NEW MT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LG	BOTH DIRECTIONS	ALL LANES
324	28-Oct-15	Timber Debris **SEE INC 326**	Hazard	Misc Hazrd	MT OUSLEY RD/MOUNT OUSLEY	NORTH	ONE LANE
326	28-Oct-15	TIMBER DEBRIS	Hazard	Debris	M1 MTWY NTHBND/BOTTOM OF MOUNT OUSLEY/KEIRAVILLE	NORTH	ALL LANES
412	29-Oct-15	BREAKDOWN TRUCK	Breakdown	Truck	MOUNT OUSLEY RD NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
480	30-Oct-15	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
105	01-Nov-15	Breakdown: Car and Caravan	Breakdown	Breakdown	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
123	03-Nov-15	BREAKDOWN - CAR	Breakdown	Car	PRINCES MTWY/MOUNT OUSLEY	NORTH	ALL LANES
132	04-Nov-15	Type : Driving Complaint (022)Status :	Breakdown	Car	MOUNT OUSLEY RD >> SYD BOTTOM JUST B4 YOU GO UP TH MOUNT OUSLEY 2519 WOLLONG	BOTH DIRECTIONS	ALL LANES
656	06-Nov-15	Hazard: Animals	Hazard	Animals	MOUNT OUSLEY RD S BND NEW MT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LGA)	BOTH DIRECTIONS	ALL LANES
56	08-Nov-15	Type : ICEMS (084)Status : None Specifi	Crash	Car	MOUNT OUSLEY RD M1 SOUTHBOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
87	09-Nov-15	4WD B/D	Breakdown	Car	MT OUSLEY RD/MOUNT OUSLEY	NORTH	ONE LANE
19	10-Nov-15	BREAKDOWN - TRUCK	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
51	11-Nov-15	BREAKDOWN - TRUCK	Breakdown	Truck	MOUNT OUSLEY RD SBND - NR WOLLONGONG UNI PRINCES MTWY KEIRAVILLE 2500 WOLLO	SOUTH	ALL LANES
653	12-Nov-15	Hazard: Animals	Hazard	Animals	M1 (MOUNT OUSLEY RD) (PRI SAFETY RAMP NR RTA INSPECTION BAY > S MOUNT OUSL	ANY DIRECTION	ALL LANES
197	13-Nov-15	SEE INCIDENT 198	Hazard	Misc Hazrd	MOUNT OUSLEY RD MT PLEASANT RD MOUNT PLEASANT 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
324	13-Nov-15	BREAKDOWN CAR	Breakdown	Car	MT OUSLEY RD/OLD MT OUSLEY RD/MOUNT OUSLEY	SOUTH	ALL LANES
235	16-Nov-15	BREAKDOWN - TRUCK	Breakdown	Truck	MOUNT OUSLEY RD S BND - LANE 1 NEW MT PLEASANT RD MOUNT OUSLEY 2519 WOLLONG	SOUTH	ONE LANE
378	16-Nov-15	BREAKDOWN - TRUCK	Breakdown	Truck	MT OUSLEY RD/MOUNT OUSLEY	NORTH	ALL LANES
522	16-Nov-15	TRUCK IN THE SAFETY RAMP	Breakdown	Car	MOUNT OUSLEY RD BOTTOM SAND TRAP OLD MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLL	SOUTH	BREAKDOWN
193	18-Nov-15	2 X TRUCK MVA	Crash	Truck	MOUNT OUSLEY RD NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	TWO LANES
452	18-Nov-15	BREAKDOWN - TRUCK	Breakdown	Truck	M1 MTWY/MOUNT OUSLEY	SOUTH	ALL LANES
181	22-Nov-15	DEER ON ROAD	Hazard	Animals	MOUNT OUSLEY RD/NEAR NEW MT PLEASANT RD OVERPASS/MOUNT OUSLEY	NORTH	ALL LANES
177	23-Nov-15	Breakdown - Mount Ousley	Police	Traffic	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
370	23-Nov-15	DEBRIS	Hazard	Debris	M1 MTWY/MOUNT OUSLEY	NORTH	ALL LANES
782	24-Nov-15	HAZARD - COW	Hazard	Animals	MOUNT OUSLEY RD S BND TOP OF THE HILL NR MT KEIRA RD PRINCES MOUNT OUSLEY 25	SOUTH	ALL LANES
141	25-Nov-15	BREAKDOWN - CAR	Breakdown	Car	PRINCES MTWY/PAST MT OUSLEY RD/MOUNT OUSLEY	NORTH	ALL LANES
436	26-Nov-15	BREAKDOWN - TRUCK	Breakdown	Truck	MOUNT OUSLEY RD SOUTH BOUND -200-300M FROM BOTTOM BREAK MOUNT OUSLEY 2519 WO	NORTH	ALL LANES
320	27-Nov-15	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES

Id	Date	Incident Description	Type	Sub-type	Location Description	Direction	Affected Lanes
372	27-Nov-15	parked trucks	Hazard	Misc Hazrd	MT OUSLEY RD/MOUNT OUSLEY	NORTH	BREAKDOWN
320	28-Nov-15	Hazard: Animals	Hazard	Animals	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
17	29-Nov-15	HAZARD: COW	Hazard	Animals	MOUNT OUSLEY RD 50M B4 FIRST SAFETY RAMP >>> W MOUNT KEIRA RD MOUNT OUSLEY 2	SOUTH	ALL LANES
76	06-Dec-15	Hazard: loose cows	Hazard	Animals	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
485	09-Dec-15	BREAKDOWN - VW TRANSPORTER	Breakdown	Breakdown	M1 MTWY/MOUNT OUSLEY	NORTH	ALL LANES
16	14-Dec-15	BREAKDOWN - TRUCK	Breakdown	Truck	MOUNT OUSLEY RD NTH BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
593	15-Dec-15	PEDESTRIAN WALKING M1	Hazard	Pedestrian	M1 MTWY/MOUNT OUSLEY RD/MT OUSLEY	SOUTH	NO LANES
600	16-Dec-15	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD APPROX HALF WAY UP HILL - N BND MOUNT OUSLEY 2519 WOLLONGONG	BOTH DIRECTIONS	ALL LANES
10	17-Dec-15	MVC 2CARS (1VEH FTS)	Crash	Multi-veh	MOUNT OUSLEY RD 200 M W OF INT PRINCES MTWY KEIRAVILLE 2500 WOLLONGONG (LGA	SOUTH	ONE LANE
221	18-Dec-15	BREAKDOWN:TRUCK	Breakdown	Truck	M1 MTWY/MOUNT OUSLEY	SOUTH	ALL LANES
143	23-Dec-15	BREAKDOWN CAR	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
51	24-Dec-15	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD LANE 1 NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
82	24-Dec-15	BREAKDOWN - CAR	Breakdown	Car	MOUNT OUSLEY RD NTH BD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
365	24-Dec-15	Hazard: Animals	Hazard	Animals	M1 NTH BND/ MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
86	27-Dec-15	BREAKDOWN - CAR	Breakdown	Car	MOUNT OUSLEY RD E BND PRINCES MTWY MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	EAST	ALL LANES
136	28-Dec-15	BREAKDOWN	Breakdown	Breakdown	MOUNT OUSLEY RD NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
234	30-Dec-15	B/D CAR	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
125	01-Jan-16	B/DOWN CAR	Breakdown	Car	M1 MTWY/MOUNT OUSLEY	NORTH	ALL LANES
198	02-Jan-16	B/D CAR - CCTV 486	Breakdown	Car	MOUNT OUSLEY RD N BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
229	02-Jan-16	ACCIDENT - CARS	Crash	Car	MOUNT OUSLEY RD STH BD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ONE LANE
233	07-Jan-16	BREAKDOWN - TRUCK	Breakdown	Truck	MOUNT OUSLEY RD NEW MT OUSLEY RD NORTH MT PLEASANT OVER MOUNT OUSLEY 2519 W	NORTH	ONE LANE
378	07-Jan-16	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD LANE 1 NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
434	11-Jan-16	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD NTH BD 1KM PAST PICTON RD MOUNT OUSLEY 2519 WOLLONGONG (LGA)	BOTH DIRECTIONS	ALL LANES
140	12-Jan-16	CATTLE ON SIDE OF ROAD	Hazard	Animals	MOUNT OUSLEY RD NR SPEEDCAMERA HALF WAY DOWN - STH BOUND MOUNT OUSLEY 2519 W	SOUTH	ALL LANES
387	12-Jan-16	BREAKDOWN CAR	Breakdown	Car	MOUNT OUSLEY RD 100M FROM BOTTOM OF MT OUSLEY MOUNT OUSLEY 2519 WOLLONGONG (	SOUTH	ALL LANES
338	21-Jan-16	BREAKDOWN - TRUCK (CAM 486)	Breakdown	Truck	MOUNT OUSLEY RD OPP CROSSOVER 10 MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
173	25-Jan-16	Type : Driving Complaint (022)Status :	Breakdown	Breakdown	MOUNT OUSLEY RD LANE 1 STH BND NR TRUCK REST STOP MOUNT OUSLEY 2519 WOLLONGO	BOTH DIRECTIONS	ALL LANES
228	25-Jan-16	BREAKDOWN CAR	Breakdown	Car	MOUNT OUSLEY RD NTH BOUND - 1KM NTH OF BELLAMBI CREEK MOUNT OUSLEY 2519 WOLL	BOTH DIRECTIONS	ALL LANES
209	26-Jan-16	Type : Driving Complaint (022)Status :	Hazard	Debris	MOUNT OUSLEY RD X CATARACT CREEK MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
439	28-Jan-16	BREAKDOWN TRUCK	Breakdown	Truck	MOUNT OUSLEY RD N BND NR MT PLEASANT OVERPASS MOUNT OUSLEY 2519 WOLLONGONG (	NORTH	ALL LANES
121	30-Jan-16	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NORTH BOUND LANE 1/ NEW MOUNT PLEASANT MOUNT OUSLEY 2519 WO	SOUTH	ALL LANES
327	31-Jan-16	Hazard: Animals	Hazard	Animals	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
40	02-Feb-16	B DOUBLE B/D	Breakdown	Truck	MT OUSLEY RD/MT OUSLEY RD SERVICE RD/MOUNT OUSLEY	BOTH DIRECTIONS	ALL LANES
119	04-Feb-16	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD N BND LANE 1 OF 3 MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	ANY DIRECTION	ALL LANES
137	04-Feb-16	Type : Accident (002)Status : Contact I	Crash	Crash	PRINCES (MOUNT OUSLEY RD) MTWY N BOUND - R LA MOUNT OUSLEY RD MOUNT OUSLEY 2	NORTH	ALL LANES
481	04-Feb-16	BREAKDOWN - TRUCK	Breakdown	Truck	MOUNT OUSLEY RD N BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
332	05-Feb-16	BREAKDOWN - TRUCK	Breakdown	Truck	MOUNT OUSLEY RD WEST BOUND OLD MT OUSLEY RD GAYNOR AVE MOUNT OUSLEY 2519 W	WEST	ALL LANES
400	09-Feb-16	Hazard: Misc Hazrd	Hazard	Animals	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
498	09-Feb-16	BREAKDOWN - CAR	Breakdown	Car	MOUNT OUSLEY RD NTH BND - BREAK DOWN LANE MOUNT OUSLEY 2519 WOLLONGONG (LGA)	NORTH	ALL LANES
519	11-Feb-16	2 CAR MVA	Crash	Car	MOUNT OUSLEY RD CLOSE TO BOTTOM OF HILL >>> WOL MOUNT OUSLEY 2519 WOLLONGONG	SOUTH	ONE LANE
747	11-Feb-16	Type : Driving Complaint (022)Status :	Breakdown	Breakdown	MOUNT OUSLEY RD >>> SYDNEY AT BOTTOM OF HILL MOUNT OUSLEY 2519 WOLLONGONG (L	NORTH	ONE LANE
627	12-Feb-16	Type : Animal Complaint (006), Driving C	Hazard	Animals	MOUNT OUSLEY RD B4 SPEED CAMERA >>> SBND M1 KEIRAVILLE 2500 WOLLONGONG (LGA	BOTH DIRECTIONS	ALL LANES
369	13-Feb-16	Type : ICEMS (084)Status : None Specifi	Fire	Other	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
209	16-Feb-16	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD STH BND LANE 1 MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	ANY DIRECTION	ALL LANES
54	22-Feb-16	BREAKDOWN - TRUCK	Breakdown	Truck	MOUNT OUSLEY RD NTH BND 200M FROM THE BOTTOM LANE 1 MOUNT OUSLEY 2519 WOLLON	NORTH	ONE LANE
389	24-Feb-16	BREAKDOWN - 6T TIPPER	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
505	29-Feb-16	B/D CAR	Breakdown	Car	MT OUSLEY RD/MT PLEASANT RD/MOUNT OUSLEY	NORTH	ONE LANE
434	01-Mar-16	Breakdown: Car	Breakdown	Car	MT OUSLEY RD/MOUNT OUSLEY	NORTH	BREAKDOWN
118	03-Mar-16	Poss B/Down Truck Mt Ousley	Breakdown	Truck	MT OUSLEY RD/MOUNT OUSLEY	SOUTH	ALL LANES
76	04-Mar-16	Breakdown: Truck	Breakdown	Truck	M1 MOUNT OUSLEY RD/NEW MOUNT PLEASANT RD/MOUNT OUSLEY 2519 WOLLONGONG (LGA) N	NORTH	ONE LANE
49	08-Mar-16	Accident Car	Crash	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
52	11-Mar-16	HAZARD CAR STUCK	Hazard	Misc Hazrd	MOUNT OUSLEY (MOUNT OUSLE RD NR WOLLONGONG EXIT AT M1 FAIRY MEADOW 2519 WOL	BOTH DIRECTIONS	ALL LANES
65	13-Mar-16	HAZARD - COW	Hazard	Animals	MOUNT OUSLEY RD NR THE SAND TRAP MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
595	16-Mar-16	BREAKDOWN - CAR-CARRIER	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	EAST	ALL LANES
672	16-Mar-16	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD NTH BND NEW MOUNT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG	BOTH DIRECTIONS	ALL LANES
147	17-Mar-16	B/D TRUCK B/D	Breakdown	Breakdown	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
181	18-Mar-16	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
24	23-Mar-16	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD S BND TRUCK STOP MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
213	23-Mar-16	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NTH BND NEW MOUNT PLEASANT MOUNT OUSLEY 2519 WOLLONGONG (LG	BOTH DIRECTIONS	ALL LANES
335	24-Mar-16	TRUCK BREAKDOWN	Breakdown	Truck	MT OUSLEY RD CLIVE BISSELL DRIVE MT KEIRA /MOUNT OUSLEY	SOUTH	ONE LANE
175	25-Mar-16	BREAKDOWN - CAR	Breakdown	Car	MOUNT OUSLEY RD 300M S OF NEW MT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (L	WEST	ALL LANES
134	26-Mar-16	DEERS ON ROAD SIDE	Hazard	Animals	MOUNT OUSLEY RD KLO4 3 DEERS ON SIDE OF ROAD NB AT BULLI MOUNT OUSLEY 2519 W	BOTH DIRECTIONS	ALL LANES
63	30-Mar-16	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD NEAR MT PLEASANT BRIDGE MOUNT OUSLEY 2519 WOLLONGONG (LGA)	BOTH DIRECTIONS	ALL LANES
170	31-Mar-16	B/DOWN TRUCK	Breakdown	Truck	MT OUSLEY RD/MOUNT OUSLEY	NORTH	ONE LANE

Id	Date	Incident Description	Type	Sub-type	Location Description	Direction	Affected Lanes
297	04-Apr-16	BREAKDOWN - CAR	Breakdown	Car	MOUNT OUSLEY RD NTH BND 200 MTS NTH OF NEW MT PLEASANT R MOUNT OUSLEY 2519 W	NORTH	ALL LANES
442	04-Apr-16	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD STH BND - NR MT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LG	BOTH DIRECTIONS	ALL LANES
534	06-Apr-16	BREAKDOWN B-DOUBLE	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
707	06-Apr-16	Type : Animal Complaint (006)Status : N	Hazard	Animals	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
487	07-Apr-16	BREAKDOWN	Breakdown	Car	MT OUSLEY RD/MOUNT OUSLEY	BOTH DIRECTIONS	ALL LANES
219	11-Apr-16	BREAKDOWN TRUCK	Breakdown	Truck	MT OUSLEY RD/MOUNT OUSLEY	SOUTH	ONE LANE
417	11-Apr-16	Hazard: Animals	Hazard	Animals	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
174	13-Apr-16	BREAKDOWN TRUCK	Breakdown	Truck	MOUNT OUSLEY RD NTH BND JUST PAS NEW MT PLEASANT OVERPAS MOUNT OUSLEY 2519 W	NORTH	ALL LANES
469	13-Apr-16	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD UNDER NEW MT PLEANT OVERPASS MOUNT OUSLEY 2519 WOLLONGONG (L	NORTH	ONE LANE
499	14-Apr-16	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
111	16-Apr-16	Type : Driving Complaint (022)Status :	Breakdown	Breakdown	MOUNT OUSLEY RD LANE 1 STH BD TOP OF MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
155	16-Apr-16	BREAKDOWN - CAR	Breakdown	Car	MOUNT OUSLEY RD LANE 1 NB MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
335	19-Apr-16	TRUCK BREAKDOWN	Breakdown	Truck	M1 MOUNT OUSLEY RD STH BND NEAR SAND TRAP MOUNT OUSLEY 2519 WOLLONGONG (LGA)	SOUTH	BREAKDOWN
35	20-Apr-16	TRUCK B/D -PH BAY 842	Breakdown	Truck	MOUNT OUSLEY RD N BND MT OUSLEY PICTON RD MOUNT OUSLEY 2519 WOLLONGONG (LGA	NORTH	ONE LANE
127	22-Apr-16	BREAKDOWN - TRUCK	Breakdown	Truck	MOUNT OUSLEY RD NTH BND NEAR MT PLEASANT OVERPASS MOUNT OUSLEY 2519 WOLLONGO	BOTH DIRECTIONS	ALL LANES
78	26-Apr-16	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD BOTTOM OF MOUNT OUSLEY - NORTH BND MOUNT OUSLEY 2519 WOLLONG	BOTH DIRECTIONS	ALL LANES
232	26-Apr-16	HAZARD DEAD FOX	Hazard	Animals	MT OUSLEY RD/MOUNT OUSLEY	NORTH	ONE LANE
394	27-Apr-16	ANIMAL DEER	Hazard	Animals	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
483	02-May-16	Accident:TRUCK V CAR	Crash	Car	MT OUSLEY RD/MOUNT OUSLEY	SOUTH	ONE LANE
155	03-May-16	ABANDONED LANDROVER	Breakdown	Unattended	MT OUSLEY RD/MOUNT OUSLEY	SOUTH	BREAKDOWN
449	03-May-16	ACCIDENT 2 CARS	Crash	Car	M1 MTWY/MOUNT OUSLEY	SOUTH	ONE LANE
364	06-May-16	BREAKDOWN - TRUCK : CAM 486	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
428	06-May-16	BREAKDOWN - TRUCK	Breakdown	Truck	M1 MTWY/MOUNT OUSLEY	SOUTH	ALL LANES
253	07-May-16	Type : Driving Complaint (022)Status :	Breakdown	Car	MOUNT OUSLEY RD NTH BOUND LANE 1 NEW MT PLEASANT RD MOUNT OUSLEY 2519 WOLLO	BOTH DIRECTIONS	ALL LANES
321	11-May-16	BREAKDOWN:TRUCK	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
20	12-May-16	CAR B/D	Breakdown	Car	MOUNT OUSLEY RD CLIVE BISSELL DR NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA)	NORTH	ONE LANE
82	13-May-16	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
197	14-May-16	RUNAWAY TRUCK	Crash	Truck	MOUNT OUSLEY RD BOTTOM OF HILL S BND IN TRACK SAFETY RAM PRINCESS MWAY MOUNT	NORTH	ONE LANE
19	15-May-16	Hazard: Misc Hazrd	Hazard	Misc Hazrd	MOUNT OUSLEY (PRINCES MTW RD EMERGENCY SAND PIT SAFETY MOUNT OUSLEY 2519 WO	BOTH DIRECTIONS	ALL LANES
41	15-May-16	HAZARD - ANIMALS	Hazard	Animals	MOUNT OUSLEY RD S BND - JUST B4 MOUNT PLEASANT TURN OFF MOUNT OUSLEY 2519 WO	BOTH DIRECTIONS	ALL LANES
434	16-May-16	BREAKDOWN - CAR	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
4	21-May-16	B/D CAR	Breakdown	Car	MOUNT OUSLEY RD LANE 1 MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
473	23-May-16	B/D CAR	Breakdown	Car	MOUNT OUSLEY RD AT BOTTOM OF SAFETY RAMP STH BND MOUNT OUSLEY 2519 WOLLONG	SOUTH	BREAKDOWN
463	26-May-16	B/DOWN CAR	Breakdown	Car	MT OUSLEY RD 200M S OF CLIVE BISSEL DR MOUNT OUSLEY	NORTH	ONE LANE
500	26-May-16	B/D CAR (FLAT TYRE)	Breakdown	Breakdown	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	BREAKDOWN
209	27-May-16	B/D TRUCK/DOG	Breakdown	Truck	MT OUSLEY RD/M1 MTWY/MOUNT OUSLEY	SOUTH	ONE LANE
481	27-May-16	B/D TRUCK	Hazard	Misc Hazrd	MOUNT OUSLEY RD NTHBND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
25	29-May-16	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD LANE 1 NTH BND NTH OF MT PLEASANT RD OVE MOUNT OUSLEY 2519 W	NORTH	ONE LANE
166	29-May-16	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD N BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
19	31-May-16	Hazard: Animals	Hazard	Animals	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
184	01-Jun-16	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NTH BOUND - BTWN BOTTOM AND NEW MT PLEAS NEW MT PLEASANT MOUN	BOTH DIRECTIONS	ALL LANES
465	01-Jun-16	Hazard: Animals	Hazard	Animals	MOUNT OUSLEY RD STH BND JUST B4 SAFETY CAMERAS MOUNT OUSLEY 2519 WOLLONGONG	BOTH DIRECTIONS	ALL LANES
56	03-Jun-16	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD 200M NTH OF MT OUSLEY ON RAMP NTH DIR MOUNT OUSLEY 2519 WOLL	BOTH DIRECTIONS	ALL LANES
1545	05-Jun-16	TREE DOWN	Hazard	Debris	MT OUSLEY RD/MOUNT OUSLEY	NORTH	ALL LANES
55	06-Jun-16	HAZARD - 3 X TREE DOWN	Hazard	dbnull	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
323	07-Jun-16	2 CAR MVA	Crash	Car	MOUNT OUSLEY RD 500M FROM BTM OF MT OUSLEY NTH BOUND MOUNT OUSLEY 2519 WOLLO	NORTH	ALL LANES
524	07-Jun-16	HAZARD - FALLEN TREE	Hazard	dbnull	MT OUSLEY RD/MOUNT OUSLEY	SOUTH	ALL LANES
362	08-Jun-16	TRUCK IN SAFETY RAMP***SEE INC 365***	Crash	Crash	M1 MWY MT OUSLEY RD/MOUNT OUSLEY	SOUTH	ALL LANES
641	09-Jun-16	COW	Hazard	Animals	MOUNT OUSLEY RD STH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
445	10-Jun-16	ACCIDENT - 3 CARS	Crash	Crash	MOUNT OUSLEY RD STH BND LANE 3 OF 3 MOUNT OUSLEY 2519 WOLLONGONG (LGA) NS	BOTH DIRECTIONS	ALL LANES
447	10-Jun-16	Accident: Car	Crash	Car	MOUNT OUSLEY RD 2ND ACCO STH BND NEAR RTA INSP BAY MOUNT OUSLEY 2519 WOLLO	BOTH DIRECTIONS	ALL LANES
58	13-Jun-16	B/D 4WD	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
523	15-Jun-16	BREAKDOWN - B-DOUBLE	Breakdown	Truck	MOUNT OUSLEY RD NTH BD ONE KM NTH OF NEW MT PLEASANT RD MOUNT OUSLEY 2519 WO	NORTH	ALL LANES
23	16-Jun-16	Hazard: Misc Hazrd	Hazard	Misc Hazrd	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
519	16-Jun-16	Type : Accident (002)Status : See Infor	Crash	Car	MOUNT OUSLEY RD APPROX HALFWAY DOWN HILL STH BND SIDE MOUNT OUSLEY 2519 WOL	SOUTH	ALL LANES
107	21-Jun-16	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD CLIVE BISSELL DR NTH BOUND LANE 1 OF 3 MOUNT OUSLEY 2519 WOL	NORTH	ALL LANES
81	23-Jun-16	BREAKDOWN - TRUCK	Breakdown	Breakdown	M1 MOUNT OUSLEY RD STH OF NEW MT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LGA	NORTH	ONE LANE
348	23-Jun-16	HAZARD - BUMPER BAR	Hazard	Debris	MOUNT OUSLEY RD NORTH BND NEW MOUNT PLEASANT MOUNT OUSLEY 2519 WOLLONGONG	NORTH	ALL LANES
397	23-Jun-16	BREAKDOWN - TRUCK	Breakdown	Truck	MOUNT OUSLEY RD NTH BND LANE 1 MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
407	23-Jun-16	MVA - CAR ON ROOF	Crash	Car	MOUNT OUSLEY RD 5 KM FROM WOLLONGONG -- N BND DIR -- TOP MOUNT OUSLEY 2519 W	NORTH	ALL LANES
587	23-Jun-16	BREAKDOWN - CAR	Breakdown	Car	MOUNT OUSLEY RD HALF WAY UP MOUNT OUSLEY -- N BND MOUNT OUSLEY 2519 WOLLONGO	BOTH DIRECTIONS	ALL LANES
162	25-Jun-16	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD PICTON RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
276	25-Jun-16	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
155	26-Jun-16	HAZARD - DEER	Hazard	Animals	MOUNT OUSLEY RD NR UNIVERISTY M1 KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	NO LANES

Id	Date	Incident Description	Type	Sub-type	Location Description	Direction	Affected Lanes
442	27-Jun-16	B-DOUBLE B/D	Breakdown	Truck	MT OUSLEY RD/NEW MT PLEASANT RD/MOUNT OUSLEY	NORTH	ONE LANE
486	30-Jun-16	COW	Hazard	Animals	MT OUSLEY RD/MOUNT OUSLEY	SOUTH	ALL LANES
330	10-Jul-16	Hazard: Animals	Hazard	Animals	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
469	11-Jul-16	HAZARD - COW	Hazard	Animals	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
180	13-Jul-16	MVA SINGLE CAR	Crash	Car	MOUNT OUSLEY RD PICTON RD STH BND CATARACT 2519 WOLLONGONG (LGA) NSW	NORTH AND SOUTH	ALL LANES
304	13-Jul-16	TREE ON ROAD	Hazard	Misc Hazrd	M1 ON RAMP NTH BND MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
512	14-Jul-16	BREAKDOWN - CAR	Breakdown	Car	MOUNT OUSLEY RD N BND JUST PAST NEW MT PLEASANT RF OVERP MOUNT OUSLEY 2519 W	NORTH	ALL LANES
244	15-Jul-16	BREAKDOWN - CAR	Breakdown	Car	MOUNT OUSLEY RD NORTH BND - JUST NORTH OF PICTON RD PICTON RD TURN OFF MOUNT	NORTH	ALL LANES
295	19-Jul-16	BREAKDOWN:TRUCK	Breakdown	Truck	MOUNT OUSLEY RD NTH BND lane 1 NEW MT PLEASANT OVERpass MOUNT OUSLEY 2519 W	NORTH	ALL LANES
431	21-Jul-16	DIESEL OR OIL SPILL	Hazard	Misc Hazrd	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
474	25-Jul-16	Hazard: Animals	Hazard	Animals	MOUNT OUSLEY RD SBND ON A BEND UNDER THE SIGN FOR MT PLE MOUNT OUSLEY 2519 W	SOUTH	ALL LANES
413	26-Jul-16	Type : Traffic Incident (064)Status : N	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
271	30-Jul-16	HAZARD - ANIMALS	Hazard	Animals	MOUNT OUSLEY RD E BND SIDE JUST SE OF WEIGH BRIDGE MOUNT OUSLEY 2519 WOLLONG	BOTH DIRECTIONS	ALL LANES
466	02-Aug-16	HAZARD - COWS	Hazard	Animals	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
352	03-Aug-16	Hazard: Debris	Hazard	Debris	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
111	10-Aug-16	BREAKDOWN - SEMI	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
136	12-Aug-16	Breakdown: Truck*** CAM 1154***	Breakdown	Truck	MOUNT OUSLEY RD STH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
31	16-Aug-16	CAR STOPPED IN THE TRUCK ARRESTER BED	Breakdown	Car	MOUNT OUSLEY RD MT PLEASANT MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	BREAKDOWN
49	16-Aug-16	BREAKDOWN:TRUCK	Crash	Truck	MOUNT OUSLEY RD NR TURN OFF TO MT KEIRA >>>SY MOUNT OUSLEY 2519 WOLLONGONG	NORTH	ALL LANES
61	16-Aug-16	ACCIDENT: 3 CARS	Crash	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
86	16-Aug-16	CAR FIRE	Fire	Vehicle	MOUNT OUSLEY RD/RIXON PASS RD/CATARACT	NORTH	BREAKDOWN
441	18-Aug-16	BREAKDOWN - TRUCK	Breakdown	Truck	M1 MOUNT OUSLEY RD / 200-300M NTH OF NEW MT PLEASANT / MOUNT OUSLEY 2519 WOLLO	NORTH	ONE LANE
442	18-Aug-16	LADDER ON ROAD	Hazard	Debris	M1 MOUNT OUSLEY RD NORTH BOUND BET UNI AND OLD MT OUSLEY RD MOUNT OUSLEY 2519	NORTH	ONE LANE
158	22-Aug-16	BREAKDOWN - TRUCK	Breakdown	Truck	MOUNT OUSLEY RD HEAVY VEH OVERSIZE BROKEN DOWN MOUNT OUSLEY 2519 WOLLONGONG	NORTH	ALL LANES
254	23-Aug-16	Accident: Car	Crash	Car	MOUNT OUSLEY RD OPP THE UNIVERSITY ON THE SAFETY RAMP MOUNT OUSLEY 2519 WOLL	BOTH DIRECTIONS	ALL LANES
456	25-Aug-16	HAZARD: COWS	Hazard	Animals	MOUNT OUSLEY RD W BND - APPROX 1KM FROM INT PRINCES MTWY KEIRAVILLE 2500 WO	BOTH DIRECTIONS	ALL LANES
444	31-Aug-16	4 COWS GRAZING ON THE SIDE OF THE ROAD	Hazard	Animals	MOUNT OUSLEY RD SBND JUST B4 SPEED CAMERA AND SAFETY TRU MOUNT OUSLEY 2519 W	SOUTH	ALL LANES
136	02-Sep-16	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
599	02-Sep-16	Hazard: Debris	Hazard	Debris	MOUNT OUSLEY RD NTH BND APPROX 100M NTH OF START OF ASCE MOUNT OUSLEY 2519 W	BOTH DIRECTIONS	ALL LANES
614	02-Sep-16	CAR IN SAFETY	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
622	02-Sep-16	Breakdown: CAR	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
635	02-Sep-16	Accident: Accident	Crash	Crash	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	ANY DIRECTION	ALL LANES
669	02-Sep-16	Hazard: Misc Hazrd	Hazard	Misc Hazrd	MOUNT OUSLEY (PRINCES MTW RD SAFETY RAMP ON INT MOUNT OUSLEY 2519 WOLLONGONG	BOTH DIRECTIONS	ALL LANES
403	06-Sep-16	BREAKDOWN - TRUCK	Breakdown	Truck	M1 MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
93	08-Sep-16	Type : Driving Complaint (022)Status :	Breakdown	Truck	MOUNT OUSLEY RD STH BND - 500M STH OF NEW MOUNT PLEASANT RD MOUNT OUSLEY 251	SOUTH	ALL LANES
183	08-Sep-16	Type : Traffic Duties (094)Status : Non	Breakdown	Car	MOUNT OUSLEY RD I1 nth bnd 300m STH OF NEW MOUNT PLEASAN MOUNT OUSLEY 2519 W	BOTH DIRECTIONS	ONE LANE
235	09-Sep-16	HAZARD BLUE GRATE	Hazard	Debris	MT OUSLEY RD/TOP OF THE HILL/ MOUNT OUSLEY	NORTH	ONE LANE
192	12-Sep-16	BREAKDOWN - CAR	Breakdown	Car	MOUNT OUSLEY RD NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
14	13-Sep-16	Hazard: Animals	Hazard	Animals	MOUNT OUSLEY RD APPROX 2KM FROM TAFE HEADING NORTH MOUNT OUSLEY 2519 WOLLONG	BOTH DIRECTIONS	ALL LANES
61	15-Sep-16	TRUCK B/D	Breakdown	Breakdown	MOUNT OUSLEY RD NTH BND 1 OF 3 MT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG	BOTH DIRECTIONS	ALL LANES
103	15-Sep-16	2 X CARS B/D	Breakdown	Car	MT OUSLEY RD/MOUNT OUSLEY	SOUTH	ALL LANES
234	15-Sep-16	TRUCK B/D	Breakdown	Truck	MOUNT OUSLEY RD SEMI BROKEN DOWN STH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA)	SOUTH	ALL LANES
149	16-Sep-16	CAR B/D	Breakdown	Car	MOUNT OUSLEY RD N BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
360	16-Sep-16	CAR B/D	Breakdown	Car	MOUNT OUSLEY RD N BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
179	25-Sep-16	BREAKDOWN - CAR	Breakdown	Car	M1 MT OUSLEY RD/MOUNT OUSLEY	SOUTH	ONE LANE
99	01-Oct-16	TREE BRANCHS ON ROAD	Hazard	Misc Hazrd	MT OUSLEY RD/MOUNT OUSLEY	SOUTH	ALL LANES
247	01-Oct-16	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD LANE 1 NTH BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
250	01-Oct-16	Breakdown: Car	Breakdown	Car	PRINCES MTWY ON STEEP DECENT >>> WG MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONG	SOUTH	ALL LANES
555	04-Oct-16	Hazard: Tree Down	Hazard	dbnull	MOUNT OUSLEY RD >>> WG - AFTER MOUNT PLEASEANT MOUNT OUSLEY 2519 WOLLONGONG	SOUTH	BREAKDOWN
134	09-Oct-16	MULTI B/D VEHS	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
138	09-Oct-16	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
417	10-Oct-16	BREAKDOWN CAR	Breakdown	Car	M1 MTWY/MOUNT OUSLEY RD/MOUNT OUSLEY	NORTH	ONE LANE
97	11-Oct-16	Accident: Car	Crash	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
115	12-Oct-16	TRUCK B/D	Breakdown	Truck	M1 MT OUSLEY RD/MOUNT OUSLEY	NORTH	ALL LANES
264	12-Oct-16	BREAKDOWN CAR	Breakdown	Car	MT OUSLEY RD/MOUNT OUSLEY	NORTH	ALL LANES
123	13-Oct-16	Type : VOI/POI Stop (099)Status : None	Hazard	Misc Hazrd	MOUNT OUSLEY RD STHBND HEAVY VEH INSPECTION BAY MOUNT OUSLEY 2519 WOLLONGON	SOUTH	BREAKDOWN
494	13-Oct-16	Type : Accident (002)Status : None Spec	Breakdown	Truck	MOUNT OUSLEY RD NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
373	14-Oct-16	Type : Accident (002)Status : None Spec	Crash	Car	MOUNT OUSLEY RD STH BND NEW MOUNT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG	SOUTH	ONE LANE
279	15-Oct-16	Type : Driving Complaint (022)Status :	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
283	15-Oct-16	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD JUST B4 HARRY GRAHAM DRIVE N BND MOUNT OUSLEY 2519 WOLLONGON	BOTH DIRECTIONS	ALL LANES
137	16-Oct-16	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NTH BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
144	16-Oct-16	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD PLEASE FIX BOARDS NTH BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA	ANY DIRECTION	ALL LANES
167	16-Oct-16	Accident: Car	Crash	Car	M1 >> S BND APPROX 400 M B4 TURNOFF MOUNT OUSLEY RD EXIT KEIRAVILLE 2500 WO	BOTH DIRECTIONS	ALL LANES
76	19-Oct-16	BREAKDOWN CAR AND TRAILER	Breakdown	Car	M1 MTWY/MOUNT OUSLEY	NORTH	ALL LANES

Id	Date	Incident Description	Type	Sub-type	Location Description	Direction	Affected Lanes
57	20-Oct-16	SEE INCIDENT 054	Crash	Car	MOUNT OUSLEY RD NTH BD NR TRUCK BAY MOUNT OUSLEY 2519 WOLLONGONG (LGA) NS	BOTH DIRECTIONS	ALL LANES
101	21-Oct-16	Accident: Car	Crash	Car	MOUNT OUSLEY RD 1 km north of old mt ousley rd NTH BND L MOUNT OUSLEY 2519 W	BOTH DIRECTIONS	ALL LANES
153	21-Oct-16	Accident: Accident	Crash	Crash	MOUNT OUSLEY RD NTH BND ON THE RHS LANE AT THE BOTTOM OF MOUNT OUSLEY 2519 W	BOTH DIRECTIONS	ALL LANES
415	21-Oct-16	CAR PARKED ILLEGELLY	Hazard	Misc Hazrd	M1 PRINCES MTWY/ SOUTH OF MOUNT OUSLEY ROAD/ MOUNT OUSLEY	SOUTH	BREAKDOWN
139	25-Oct-16	BREAKDOWN CAR	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
82	27-Oct-16	DRIVING COMPLAINT > PUSHBIKE RIDER	Crash	Bicycle	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
83	27-Oct-16	MVA & BREAKDOWN	Crash	Car	MOUNT OUSLEY RD N BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
403	27-Oct-16	BREAKDOWN - CAR	Breakdown	Breakdown	M1 MOUNT OUSLEY RD NTH BND JUST AFTER THE NEW MT PLEASANT O MOUNT OUSLEY 2519	NORTH	ONE LANE
487	02-Nov-16	BREAKDOWN:TRUCK	Breakdown	Truck	M1 MTWY/MOUNT OUSLEY	SOUTH	ALL LANES
53	07-Nov-16	Accident: Accident	Crash	Crash	MOUNT OUSLEY RD NTH BD NR UNI MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
376	08-Nov-16	Breakdown: Truck crane	Breakdown	Truck	MOUNT OUSLEY RD /NEW MT PLEASANT RD N BOUND LANE 1 MOUNT OUSLEY 2519 WOLLONGO	NORTH	ONE LANE
110	10-Nov-16	Car Into safety Ramp Mt Ousley	Crash	Crash	MT OUSLEY RD/MOUNT OUSLEY	SOUTH	ALL LANES
114	10-Nov-16	MVA Mt Ousley Rd	Crash	Crash	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ONE LANE
790	10-Nov-16	HAZARD - MOLASIS SPILL	Hazard	Fluid Spl	MOUNT OUSLEY RD FROM 1ST BEND AT BOTTOM TO HALFWAY UP-N MOUNT OUSLEY 2519 WO	NORTH	TWO LANES
106	14-Nov-16	VEH B/DOWN off ROAD	Breakdown	Car	MT OUSLEY RD/MOUNT OUSLEY	NORTH	ALL LANES
314	14-Nov-16	2 x TRUCK MVA	Crash	Car	MOUNT OUSLEY RD / 100M STH OF NEW MT PLEASANT RD / MT PLEASANT	BOTH DIRECTIONS	ALL LANES
360	15-Nov-16	ACCIDENT - TRUCK & 2 CARS.	Crash	Truck	M1 MOUNT OUSLEY RD NORTH BND ON MOUNT OUSLEY MOUNT OUSLEY 2519 WOLLONGONG (L	SOUTH	ALL LANES
75	16-Nov-16	BREAKDOWN - CAR	Breakdown	Car	M1 MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
336	18-Nov-16	BREAKDOWN COACH	Breakdown	Bus	MT OUSLEY RD/MOUNT OUSLEY	NORTH	ONE LANE
46	19-Nov-16	Type : Traffic Incident (064)Status : C	Hazard	Misc Hazrd	MOUNT OUSLEY RD NR 5KM TO FIGTREE SIGN - STH BND 2/3 MOUNT PLEASANT 2519	SOUTH	ONE LANE
245	19-Nov-16	MVA	Crash	Car	MOUNT OUSLEY RD JUST B4 THE PRINCESS HWY NR BOTTOM OF MT MOUNT OUSLEY 2519 W	BOTH DIRECTIONS	ALL LANES
283	19-Nov-16	CAR B/D - CCTV 486	Breakdown	Car	PRINCES MTWY HALF BET MOUNT OUSLEY AND MOUNT PLEASANT MOUNT OUSLEY RD KEIRAVI	SOUTH	ONE LANE
90	21-Nov-16	DEAD DEER X 2	Hazard	Animals	M1 (MT OUSLEY RD)/MOUNT OUSLEY	SOUTH	ALL LANES
414	22-Nov-16	BREAKDOWN - 4WD & C'VAN >POLICE CAD COPY	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
325	25-Nov-16	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD CLIVE BISSELL DRIVE MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
325	26-Nov-16	Hazard: Misc Hazrd	Hazard	Misc Hazrd	PRINCES MTWY >>>> NTHBND MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGON	ANY DIRECTION	ALL LANES
156	27-Nov-16	CAR FIRE	Fire	Vehicle	M1 MTWY/MOUNT OUSLEY	NORTH	ALL LANES
222	27-Nov-16	BREAKDOWN - CAR	Breakdown	Car	MOUNT OUSLEY RD N BND - N SIDE OF NEW MOUNT PLEASANT RD MOUNT OUSLEY 2519 WO	NORTH	ONE LANE
350	28-Nov-16	DEBRIS - FENCING	Hazard	Debris	M1/GIPPS RD OVERPASS/MOUNT OUSLEY	SOUTH	BREAKDOWN
547	28-Nov-16	BREAKDOWN - TRUCK	Breakdown	Truck	MOUNT OUSLEY RD N BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
452	29-Nov-16	BREAKDOWN - CAR	Breakdown	Car	MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
474	01-Dec-16	Accident: Accident	Crash	Crash	MOUNT OUSLEY RD SOUTHBOUND NR THE NEW MOUNT PLEASANT OVE MOUNT OUSLEY 2519 W	BOTH DIRECTIONS	ALL LANES
406	09-Dec-16	TRUCK BD	Breakdown	Truck	M1 PRINCES MTWY/MT OUSLEY RD/MOUNT OUSLEY	NORTH	ONE LANE
52	17-Dec-16	BREAKDOWN:TRUCK	Breakdown	Truck	MOUNT OUSLEY RD mount pleasant STH BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA)	BOTH DIRECTIONS	ALL LANES
204	19-Dec-16	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NTH BND LANE 1 OF 3 JUST NTH NEW MOUNT P MOUNT OUSLEY 2519 W	BOTH DIRECTIONS	ALL LANES
533	20-Dec-16	breakdown	Breakdown	Car	MOUNT OUSLEY RD /NEW MOUNT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
311	21-Dec-16	POLICE REQUIRE HEAVY VEH INSPECTORS	Police	Traffic	MOUNT OUSLEY RD STH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
354	21-Dec-16	Breakdown: Breakdown	Breakdown	Breakdown	M1 MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
218	23-Dec-16	SEE JOB #213	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY RD EXIT MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
134	27-Dec-16	HAZARD DEBRIS	Hazard	Debris	MT OUSLEY RD/MOUNT OUSLEY	NORTH	ONE LANE
242	28-Dec-16	B/DOWN MT OUSLEY	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
299	28-Dec-16	3 X KANGAROOS CLOSE TO ROAD	Hazard	Animals	M1 MOUNT OUSLEY RD / MOUNT OUSLEY (1KM BEFORE MOUNT KEIRA LOOKOUT)	NORTH	ALL LANES
137	01-Jan-17	Unknown: Unknown	Breakdown	Car	MOUNT OUSLEY RD LANE 1 NTH BND NEW MT PLEASANT MOUNT OUSLEY 2519 WOLLONGONG	BOTH DIRECTIONS	ALL LANES
212	01-Jan-17	Hazard: Animals	Hazard	Animals	MOUNT OUSLEY RD JUST PAST UNI ON SIDE OF RD M1 KEIRAVILLE 2500 WOLLONGONG	BOTH DIRECTIONS	ALL LANES
147	02-Jan-17	CAR B/D	Breakdown	Car	MOUNT OUSLEY RD/100 M N OF NEW MT PLEASANT/MOUNT OUSLEY	NORTH	ONE LANE
205	02-Jan-17	BREAKDOWN - CAR	Breakdown	Car	MOUNT OUSLEY RD JUST W OF UNIVERSITY MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
406	05-Jan-17	BREAKDOWN ***SEE INC 403***	Breakdown	Truck	MOUNT OUSLEY RD NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
78	06-Jan-17	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD BOTTOM SAFETY RAMP MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	BREAKDOWN
345	06-Jan-17	ACCIDENT	Crash	Truck	MOUNT OUSLEY RD BASE OF MT OUSLEY >> S BND B4 UNIV MOUNT OUSLEY 2519 WOLLONG	SOUTH	BREAKDOWN
471	06-Jan-17	ACCO CAR INTO ARRESTOR BED	Crash	Crash	MT OUSLEY RD/MOUNT OUSLEY RD/MOUNT OUSLEY	SOUTH	ALL LANES
102	07-Jan-17	TRUCK B/D	Breakdown	Truck	M1 MOUNT OUSLEY RD/TRUCK SAFETY RAMP/MOUNT OUSLEY	SOUTH	BREAKDOWN
275	07-Jan-17	CAR BOGGED ON SAFETY RAMP.	Crash	Car	MOUNT OUSLEY RD SAND BED BOTTOM OF MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
245	08-Jan-17	ABANDONDED CAR	Breakdown	Car	MOUNT OUSLEY RD/MOUNT OUSLEY	BOTH DIRECTIONS	ALL LANES
424	10-Jan-17	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NTH BND NEW MT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LG	BOTH DIRECTIONS	ALL LANES
401	17-Jan-17	TYRE DEBRIS	Hazard	Misc Hazrd	MOUNT OUSLEY RD NTH BND 500MTRS NTH OF NEW MT PLEASANT MOUNT OUSLEY 2519 WO	BOTH DIRECTIONS	ALL LANES
61	23-Jan-17	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD LANE 1 N BND NEW MT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGON	BOTH DIRECTIONS	ALL LANES
768	23-Jan-17	Accident: Car	Crash	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
483	25-Jan-17	Breakdown: Bus cctv 486	Breakdown	Bus	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
176	26-Jan-17	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NTH BND LANE 1 - 200M STH OF NEW MT PLEA NEW MOUNT PLEASANT RD	BOTH DIRECTIONS	ALL LANES
63	27-Jan-17	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	ANY DIRECTION	ALL LANES
172	28-Jan-17	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD NTH BOUND - BOTTOM OF MT OUSLEY MOUNT OUSLEY 2519 WOLLONGONG	NORTH	ALL LANES
179	29-Jan-17	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NBND L HAND LANE AT MT PLEASANT TURNOFF/ MOUNT OUSLEY 2519 W	NORTH	ALL LANES
153	30-Jan-17	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
379	30-Jan-17	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD BET UNIVERSITY OF WOLLONGONG AND PICTON MOUNT OUSLEY 2519 WO	BOTH DIRECTIONS	ALL LANES

Id	Date	Incident Description	Type	Sub-type	Location Description	Direction	Affected Lanes
491	01-Feb-17	B/DOWN EMERG STOP BAY, MT OUSLEY	Breakdown	Truck	M1 MTWY MOUNT OUSLEY RD MOUNT OUSLEY	EAST	ALL LANES
399	03-Feb-17	Accident: Accident	Crash	Crash	MT OUSLEY RD/MOUNT OUSLEY	BOTH DIRECTIONS	ALL LANES
283	05-Feb-17	Breakdown: Car	Breakdown	Car	PRINCES HWY NORTH BOUND MOUNT OUSLEY KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
322	10-Feb-17	Hazard: BIKE RIDER	Hazard	Misc Hazrd	M1 MTWY/ JUST PAST MT OUSLEY RD /MOUNT OUSLEY	NORTH	ALL LANES
227	11-Feb-17	CAR AND HORSE TRAILER BD	Breakdown	Car	MOUNT OUSLEY RD NORTH BOUND/ MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
399	15-Feb-17	Type : Driving Complaint (022)Status :	Hazard	Misc Hazrd	MOUNT OUSLEY RD, MOUNT OUSLEY, 2519	BOTH DIRECTIONS	ALL LANES
450	15-Feb-17	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD N BND - 1ST BEND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
368	18-Feb-17	Hazard: Misc Hazrd	Hazard	Misc Hazrd	MT OUSLEY RD/GAYNOR AV/MOUNT OUSLEY	NORTH	NO LANES
406	18-Feb-17	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD BOTTOM OF THE HILL AT TURNOFF TO WOLLONG MOUNT OUSLEY 2519 W	BOTH DIRECTIONS	ALL LANES
418	18-Feb-17	Accident: Car	Crash	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
208	19-Feb-17	BREAKDOWN CAR	Breakdown	Car	M1 JUST STH OF NEW MT PEASANT RD EXIT NEW MT PLEASANT EXIT MOUNT OUSLEY 2500	SOUTH	ONE LANE
433	20-Feb-17	HAZARD - TRUCK LOST CONCRETE LOAD	Hazard	Misc Hazrd	PRINCES MTWY/MOUNT OUSLEY RD/MOUNT OUSLEY	SOUTH	ONE LANE
414	02-Mar-17	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
743	03-Mar-17	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD N BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
59	06-Mar-17	Accident: Car	Crash	Car	MOUNT OUSLEY RD PRINCES MTWY KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
66	07-Mar-17	TRUCK BD	Breakdown	Truck	MT OUSLEY RD/MOUNT OUSLEY	NORTH	ONE LANE
59	10-Mar-17	Tow: Abandoned	Tow	Abandoned	MT OUSLEY RD/NEW MOUNT PLEASANT RD MOUNT OUSLEY	NORTH	BREAKDOWN
258	11-Mar-17	Hazard: Animals	Hazard	Animals	MOUNT OUSLEY RD APPROX 1 KM UP THE MOUNTAIN M1 KEIRAVILLE 2500 WOLLONGONG (	BOTH DIRECTIONS	ALL LANES
611	14-Mar-17	Breakdown: Car	Breakdown	Car	M1 MTWY/MOUNT OUSLEY	NORTH	ONE LANE
223	15-Mar-17	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NTH BD LANE 3 MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
436	20-Mar-17	Police: Traffic	Police	Traffic	M1 MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	ANY DIRECTION	ALL LANES
173	22-Mar-17	Police: Traffic	Police	Traffic	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
83	24-Mar-17	Accident: Car	Crash	Car	MOUNT OUSLEY RD N BND-APPROX 1KM N OF PI RD MOUNT OUSLEY 2519 WOLLONGONG (LG	BOTH DIRECTIONS	ALL LANES
160	24-Mar-17	Breakdown: Bus	Breakdown	Bus	MOUNT OUSLEY RD LANE 1 NTH BND - CREST OF MT OUSLEY MOUNT OUSLEY 2519 WOLLON	BOTH DIRECTIONS	ALL LANES
204	24-Mar-17	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD STH BND MT OUSLEY OPP BUS MOUNT OUSLEY 2519 WOLLONGONG (LGA)	BOTH DIRECTIONS	ALL LANES
41	28-Mar-17	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD NTH BOUND LANE CLIVE BISSELL DVE MOUNT OUSLEY 2519 WOLLONGONG	BOTH DIRECTIONS	ALL LANES
178	30-Mar-17	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD TOP OF MT OUSLEY MOUNT OUSLEY - N BND-JU MOUNT OUSLEY 2519 W	BOTH DIRECTIONS	ALL LANES
326	03-Apr-17	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
436	07-Apr-17	Breakdown: Breakdown	Breakdown	Breakdown	M1 EMERGENCY TRUCK SAND TRAP SBND MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGON	BOTH DIRECTIONS	ALL LANES
20	08-Apr-17	TRUCK BREAKDOWN	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
271	10-Apr-17	METAL DEBRIS	Hazard	Debris	MT OUSLEY RD/MOUNT OUSLEY	SOUTH	ONE LANE
130	12-Apr-17	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NTH BND OLD MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (L	BOTH DIRECTIONS	ALL LANES
473	12-Apr-17	Hazard: Tree Down	Hazard	dbnull	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
265	18-Apr-17	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
315	18-Apr-17	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD SAND TRAP S BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
526	20-Apr-17	Breakdown: Truck CCTV 486	Breakdown	Truck	MOUNT OUSLEY RD LANE 1 NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
341	21-Apr-17	TRUCK B/D	Police	Police	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
80	22-Apr-17	TWO DOGS ON M1	Hazard	Animals	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
214	24-Apr-17	Hazard: Animals	Hazard	Animals	MOUNT OUSLEY RD HALF WAY UP MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
335	24-Apr-17	Hazard: Pedestrian	Hazard	Pedestrian	MOUNT OUSLEY RD N BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
367	24-Apr-17	VEHICLE ON SAFETY RAMP	Breakdown	Car	MOUNT OUSLEY RD /SAFETY RAMP AT BOTTOM OF HILL MOUNT OUSLEY 2519 WOLLONGONG	SOUTH	ONE LANE
99	25-Apr-17	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD N BND 200M NTH OF NEW MT PLEASANT RD MOUNT OUSLEY 2519 WOLLO	NORTH	ALL LANES
154	26-Apr-17	TRUCK Breakdown:	Breakdown	Breakdown	MOUNT OUSLEY RD NTH BND HALF WAY UP MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
363	30-Apr-17	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD NTH BND LANE 1 MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
60	04-May-17	TRUCK VS CAR	Crash	Crash	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
367	05-May-17	B/D TRUCK & TRAILER	Crash	Car	MT OUSLEY RD/MOUNT OUSLEY	NORTH	ALL LANES
141	06-May-17	Breakdown: M/CYCLE	Breakdown	Breakdown	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
317	06-May-17	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NORTH BOUND - BOTTOM OF MOUNT OUSLEY 2519 WOLLONGONG (LGA)	NORTH	ALL LANES
121	11-May-17	Breakdown: Car	Breakdown	Car	MT OUSLEY RD/MOUNT OUSLEY	NORTH	ONE LANE
30	14-May-17	VEHICLE ON SAFETY RAMP	Hazard	Misc Hazrd	MOUNT OUSLEY RD THE SAFETY REMP NEXT TO INT OF PRINCES HWY MOUNT OUSLEY 2519	BOTH DIRECTIONS	ALL LANES
46	16-May-17	CAR FIRE OFF ROAD	Fire	Vehicle	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
158	17-May-17	TRUCK - BRAKES ON FIRE	Fire	Vehicle	MT OUSLEY RD/SAFETY RAMP/MOUNT OUSLEY	SOUTH	ALL LANES
372	18-May-17	BREAKDOWN TRUCK	Breakdown	Truck	MOUNT OUSLEY RD NTH BND CLIVE BISSELL MOUNT OUSLEY 2519 WOLLONGONG (LGA) N	NORTH	ALL LANES
193	19-May-17	Breakdown: Car	Breakdown	Car	M1 MTWY/MOUNT OUSLEY	BOTH DIRECTIONS	ALL LANES
118	21-May-17	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NBND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
488	22-May-17	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD N BND LANE 1 MT OUSLEY MOUNT OUSLEY 2519 WOLLONGONG (LGA) N	NORTH	ALL LANES
503	25-May-17	Breakdown: Car SEE JOB 495	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
443	29-May-17	Breakdown: Car X 2	Breakdown	Car	MOUNT OUSLEY RD NTHBND PRINCES MTWY KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
131	30-May-17	Hazard: Animals	Hazard	Animals	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
195	30-May-17	Accident: Car	Crash	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
335	30-May-17	Breakdown: Truck	Breakdown	Truck	MT OUSLEY RD/MOUNT OUSLEY	NORTH	ONE LANE
53	03-Jun-17	SEE INCIDENT 051	Breakdown	Truck	MOUNT OUSLEY RD N BND LANE 1 MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
206	03-Jun-17	Hazard: Animals	Hazard	Animals	MOUNT OUSLEY RD SBND OPP UNIVERCITY OF WOOLONG PRINCES MTWY MOUNT OUSLEY 251	BOTH DIRECTIONS	ALL LANES
112	04-Jun-17	Hazard: Animals	Hazard	Animals	MOUNT OUSLEY RD M1 KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES

Id	Date	Incident Description	Type	Sub-type	Location Description	Direction	Affected Lanes
111	05-Jun-17	BREAKDOWN :TRUCK	Breakdown	Truck	MOUNT OUSLEY RD NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
111	09-Jun-17	Breakdown: CAR	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
501	09-Jun-17	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
502	09-Jun-17	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
26	15-Jun-17	BREAKDOWN - CAR CARRIER	Breakdown	Truck	MOUNT OUSLEY RD NTHBOUND LANE 1 TOWARDS NEW MT PLEASANT MOUNT OUSLEY 2519 WO	NORTH	ONE LANE
476	16-Jun-17	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY RD EXIT KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
244	20-Jun-17	TRAFFIC INCIDENT	Breakdown	Car	MOUNT OUSLEY RD NEW MOUNT PLEASANT MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ONE LANE
52	21-Jun-17	Hazard: Fluid Spl	Hazard	Fluid Spl	M1 MTWY/Top of MOUNT OUSLEY to base	SOUTH	ALL LANES
153	21-Jun-17	BREAKDOWN - TRUCK	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	EAST	ONE LANE
169	21-Jun-17	2 CAR MVA	Crash	Car	MOUNT OUSLEY RD SOUTH BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ONE LANE
798	21-Jun-17	Breakdown: Truck	Breakdown	Truck	M1 MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
357	23-Jun-17	Breakdown: TRUCK	Breakdown	Truck	M1 MOUNT OUSLEY RD TOP OF MT OUSLEY BALGOWNIE 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
605	23-Jun-17	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NORTH BOUND LANE 1 NEW MT PLEASANT OVERPASS MOUNT OUSLEY 251	BOTH DIRECTIONS	ALL LANES
351	24-Jun-17	CAR BOGGED/SAFETY RAMP	Breakdown	Car	MOUNT OUSLEY RD SAFETY RAMP - BOTTOM OF MT OUSLEY - STH FAIRY MEADOW 2519 WO	SOUTH	BREAKDOWN
49	26-Jun-17	Breakdown: Truck	Breakdown	Truck	PRINCES MTWY STH BND MOUNT OUSLEY RD EXIT KEIRAVILLE 2500 WOLLONGONG (LGA)	BOTH DIRECTIONS	ALL LANES
385	26-Jun-17	TRUCK BD MOUNT OUSLEY	Breakdown	Truck	M1 MTWY/MOUNT OUSLEY	NORTH	ALL LANES
417	26-Jun-17	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NTH BOUND - MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
119	27-Jun-17	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD APPROX HALF WAY UP MOUNT OUSLEY MOUNT OUSLEY 2519 WOLLONGONG	BOTH DIRECTIONS	ALL LANES
240	30-Jun-17	Breakdown: Car	Breakdown	Car	MT OUSLEY RD/MOUNT OUSLEY	SOUTH	ALL LANES
333	02-Jul-17	Hazard: Animals	Hazard	Animals	M1 MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
51	03-Jul-17	Type : Accident (002)Status : None Spec	Crash	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
154	03-Jul-17	Hazard: Animals	Hazard	Animals	M1 MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
288	04-Jul-17	Hazard: Animals	Hazard	Animals	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
402	12-Jul-17	B/D TRUCK	Breakdown	Truck	MOUNT OUSLEY RD NTH BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
159	13-Jul-17	CAR BD	Breakdown	Breakdown	MOUNT OUSLEY RD NTHBND ON MOUNT OUSLEY MOUNT PLEASANT RD MOUNT OUSLEY 2519	NORTH	ALL LANES
224	15-Jul-17	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
565	19-Jul-17	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NORTHBOUND 500M NORTH OF NEW REST AREA MOUNT OUSLEY 2519 WOL	NORTH	ALL LANES
564	20-Jul-17	CAR IN SAND TRAP	Breakdown	Car	MT OUSLEY RD/MOUNT OUSLEY	SOUTH	ALL LANES
580	20-Jul-17	5 CAR MVA	Crash	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ONE LANE
95	21-Jul-17	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
578	26-Jul-17	CAR B/D	Breakdown	Breakdown	MOUNT OUSLEY RD NTH BND L1 OPP SAFETY INSP BAY MOUNT OUSLEY 2519 WOLLONGONG	BOTH DIRECTIONS	ALL LANES
182	02-Aug-17	Breakdown: Truck	Breakdown	Truck	M1 MTWY/MOUNT OUSLEY	NORTH	ALL LANES
505	04-Aug-17	OIL SPILL	Hazard	Fluid Spl	M1 MTWY/OLD MOUNT OUSLEY RD/ MT OUSLEY	SOUTH	ONE LANE
78	09-Aug-17	Accident: Car	Crash	Car	MOUNT OUSLEY RD TOP OF EASTERN END OF MOUNT OUSLEY 2519 WOLLONGONG (LGA) NS	BOTH DIRECTIONS	ALL LANES
166	09-Aug-17	SEE INCIDENT 165	Crash	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
524	09-Aug-17	BREAKDOWN MOTORHOME	Breakdown	Car	CCTV 486 - MT OUSLEY RD/NEW MT PLEASANT RD/MOUNT OUSLEY	NORTH	ONE LANE
306	12-Aug-17	Breakdown: Car	Breakdown	Car	M1 STH BND MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
81	16-Aug-17	Unknown: Unknown	Breakdown	Car	MOUNT OUSLEY RD SAFETY RAMP MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
83	16-Aug-17	BREAKDOWN CAR	Breakdown	Truck	MOUNT OUSLEY RD SAFETY RAMP MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
419	16-Aug-17	TRUCK B/D CAR CARRIER	Breakdown	Truck	M1 MTWY/MOUNT OUSLEY RD/ KEIRAVILLE	NORTH	ALL LANES
196	17-Aug-17	BREAKDOWN TRUCK	Breakdown	Truck	M1 MTWY/MOUNT OUSLEY	NORTH	ALL LANES
199	17-Aug-17	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
147	18-Aug-17	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD S BND - JUST B4 ARRESTOR BAY MOUNT OUSLEY 2519 WOLLONGONG (L	BOTH DIRECTIONS	ALL LANES
75	19-Aug-17	TRUCK B/D MT OUSLEY	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
355	19-Aug-17	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD SAFETY RAMP AT BOTTOM OF HILL PRINCES MTWY KEIRAVILLE 2500	BOTH DIRECTIONS	ALL LANES
81	22-Aug-17	Type : Driving Complaint (022)Status :	Breakdown	Breakdown	MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
382	25-Aug-17	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
534	25-Aug-17	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD NTH BND VEH BROKEN DOWN MOUNT OUSLEY 2519 WOLLONGONG (LGA)	NORTH	ALL LANES
278	29-Aug-17	Truck B/Down Mt Ousley	Breakdown	Breakdown	MT OUSLEY RD/MOUNT OUSLEY	NORTH	ONE LANE
517	29-Aug-17	Truck B/Down Mt Ousley	Breakdown	Breakdown	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
62	01-Sep-17	POSS B/DOWN CAR	Breakdown	Car	M1 MTWY/MOUNT OUSLEY	NORTH	ALL LANES
413	01-Sep-17	Hazard: Pedestrian	Hazard	Pedestrian	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
136	04-Sep-17	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD NTH BND JUST PAST MOUNT PLEASANT MOUNT OUSLEY 2519 WOLLONGO	BOTH DIRECTIONS	ALL LANES
408	05-Sep-17	Hazard: Tree Down	Hazard	dbnull	MOUNT OUSLEY RD 1KM STH OF PICTON RD - NTH BND MOUNT OUSLEY 2519 WOLLONGONG	BOTH DIRECTIONS	ALL LANES
393	07-Sep-17	BREAKDOWN CAR	Breakdown	Car	MT OUSLEY RD/MOUNT OUSLEY	SOUTH	ALL LANES
798	07-Sep-17	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
28	11-Sep-17	Type : Traffic Incident (064)Status : N	Breakdown	Breakdown	MOUNT OUSLEY RD N BND - LANE 1 - NEAR MT PLEASANT RD OVE MOUNT OUSLEY 2519 W	NORTH	ALL LANES
43	11-Sep-17	Type : Traffic Incident (064)Status : N	Breakdown	Breakdown	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
131	11-Sep-17	TRUCK B/D	Crash	Crash	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
450	11-Sep-17	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
73	13-Sep-17	B/DOWN - CAR	Breakdown	Car	M1 MTWY/MOUNT OUSLEY	NORTH	ONE LANE
864	14-Sep-17	Hazard: Misc Hazrd CAM 486	Hazard	Misc Hazrd	MOUNT OUSLEY (M1) (PRINCE RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
314	19-Sep-17	CAR IN SAND TRAP	Hazard	Misc Hazrd	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
32	20-Sep-17	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD NORTH BOUND/ UNIVERSITY AVE MOUNT OUSLEY 2519 WOLLONGONG (L	NORTH	ALL LANES

Id	Date	Incident Description	Type	Sub-type	Location Description	Direction	Affected Lanes
59	20-Sep-17	Breakdown: Truck CCTV 1154	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
489	20-Sep-17	TRUCK B/DOWN	Breakdown	Truck	MT OUSLEY RD/MOUNT OUSLEY	NORTH	ONE LANE
64	21-Sep-17	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
67	21-Sep-17	NIL EFFECT TO BUSES	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
367	21-Sep-17	Hazard: Debris	Hazard	Debris	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
533	22-Sep-17	Hazard: Animals	Hazard	Animals	PRINCES (MOUNT OUSLEY RD) MTWY APPROX 1KM B4 REST STOP AT THE TOP OF MO MOUNT	BOTH DIRECTIONS	ALL LANES
306	23-Sep-17	Breakdown: Car	Breakdown	Car	M1 (MOUNT OUSLEY RD) NBND NEW MT PLEASANT RD OVERPASS MOUNT OUSLEY 2519 WOLLON	NORTH	ALL LANES
151	25-Sep-17	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	ANY DIRECTION	ALL LANES
385	25-Sep-17	Hazard: Misc Hazrd	Hazard	Misc Hazrd	MOUNT OUSLEY RD N BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
159	26-Sep-17	BD - SEMI NB	Breakdown	Truck	M1 MOTORWAY/MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
158	27-Sep-17	TRUCK B/D HVY RIGID	Breakdown	Truck	M1 MTWY/CLIVE BISSELL DR/MOUNT OUSLEY	NORTH	ONE LANE
114	02-Oct-17	CAR IN SAND TRAP	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
228	02-Oct-17	Breakdown: Car	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI 400 M STH OF RTA BAY MOUNT OUSLEY 2519 WOLLONGONG	BOTH DIRECTIONS	ALL LANES
120	03-Oct-17	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD NTH BND - NTH OF NEW MT PLEASANT RD MOUNT OUSLEY 2519 WOLLO	BOTH DIRECTIONS	ALL LANES
501	03-Oct-17	Hazard: Animals	Hazard	Animals	MOUNT OUSLEY RD CLIVE BISSELL MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
201	04-Oct-17	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
430	05-Oct-17	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY (M1) (PRINCE RD NR MOUNT PLEASANT OVERPASS MOUNT OUSLEY 2519 WO	BOTH DIRECTIONS	ALL LANES
459	06-Oct-17	Hazard / car on ramp s/b	Breakdown	Car	M1 MTWY/MOUNT OUSLEY	SOUTH	ALL LANES
523	06-Oct-17	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD SAFETY BED STH BOUND/ MOUNT OUSLEY 2519 WOLLONGONG (LGA) NS	BOTH DIRECTIONS	ALL LANES
52	09-Oct-17	Hazard: Debris	Hazard	Debris	M1 (MOUNT OUSLEY RD) (PRI NTH BND LANE 1 1KM NTH OF UNIVERSITY AVE MOUNT OUSLE	BOTH DIRECTIONS	ALL LANES
336	09-Oct-17	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD WEST OF SPEED CAMERA/ PRINCES MTWY KEIRAVILLE 2500 WOLLONGO	BOTH DIRECTIONS	ALL LANES
204	10-Oct-17	Type : Traffic Incident (064)Status : N	Breakdown	Car	MOUNT OUSLEY RD SANDTRAP MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
429	10-Oct-17	Type : Driving Complaint (022)Status :	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
44	12-Oct-17	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD 2 KLM FROM THE BOTTOM N BOUND MOUNT OUSLEY 2519 WOLLONGONG	NORTH	ALL LANES
418	13-Oct-17	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD /CLIVE BISSELL DRIVE STH BND MOUNT OUSLEY 2519 WOLLONGONG (	SOUTH	ALL LANES
440	13-Oct-17	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD /CLIVE BISSELL DRIVE STH BND MOUNT OUSLEY 2519 WOLLONGONG	SOUTH	ALL LANES
387	18-Oct-17	Accident: Car	Crash	Car	M1 (MOUNT OUSLEY RD) (PRI NTH BND - NR THE REST AREA AT THE TOP PICTON RD MOU	BOTH DIRECTIONS	ALL LANES
263	19-Oct-17	Breakdown: Truck	Breakdown	Truck	M1 (MOUNT OUSLEY RD) (PRI MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
235	20-Oct-17	10 CAR MVA - SITE CLEAR	Crash	Multi-veh	MOUNT OUSLEY RD S BND BND B4 UNIVERSITY MOUNT OUSLEY 2519 WOLLONGONG (LGA)	SOUTH	TWO LANES
658	20-Oct-17	B/DOWN M/C	Breakdown	Motorcycle	M1 MTWY/MOUNT OUSLEY	NORTH	ALL LANES
454	27-Oct-17	CAR IN SAFETY RAMP	Breakdown	Car	M1 MTWY/MOUNT OUSLEY	SOUTH	NO LANES
178	29-Oct-17	Type : Driving Complaint (022)Status :	Breakdown	Breakdown	MOUNT OUSLEY RD ABOUT HALF WAY UP MT OUSLEY - N BND LANE NEW MT PLEASANT RD MOUN	NORTH	ALL LANES
83	01-Nov-17	BREAKDOWN TRUCK CEMENT TRUCK	Breakdown	Truck	MT OUSLEY RD/NEW MT PLEASHANT/MOUNT OUSLEY	NORTH	ONE LANE
87	01-Nov-17	BREAKDOWN TRUCK + OIL SPILL B-DOUBLE	Breakdown	Truck	MT OUSLEY RD/MOUNT OUSLEY	NORTH	ONE LANE
91	01-Nov-17	Hazard: Fluid Spl	Hazard	Fluid Spl	MOUNT OUSLEY RD N BOUND NEW MOUNT PLEASANT MOUNT OUSLEY 2519 WOLLONGONG (LGA) NS	NORTH	ONE LANE
875	01-Nov-17	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD LANE 1 N BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
364	04-Nov-17	Breakdown: Truck	Breakdown	Truck	M1 (MOUNT OUSLEY RD) (PRI MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
208	06-Nov-17	DRAIN GRATE LOOSE	Hazard	Debris	MOUNT OUSLEY (M1) (PRINCE RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
96	08-Nov-17	MULTI CAR MVA	Crash	Multi-veh	M1 MTMY / JUST NTH OF BELLAMBI CK / MOUNT OUSLEY	NORTH	ALL LANES
537	08-Nov-17	Breakdown: Car	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI N BND MOUNT PLEASANT MOUNT OUSLEY 2519 WOLLONGONG (LGA	BOTH DIRECTIONS	ALL LANES
545	09-Nov-17	Dead Roo Mt Ousley	Hazard	Misc Hazrd	M1 (MOUNT OUSLEY RD) (PRI MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
197	11-Nov-17	Hazard: Animals	Hazard	Animals	MOUNT OUSLEY RD N BND SIDE MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
80	12-Nov-17	Hazard: Debris	Hazard	Debris	MOUNT OUSLEY RD N BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
282	12-Nov-17	HAZARD / DEER PRANCING AROUND	Hazard	Animals	MOUNT OUSLEY RD NR UNI MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
443	13-Nov-17	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
467	14-Nov-17	Accident: Accident	Crash	Crash	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
432	15-Nov-17	Hazard: Animals	Hazard	Animals	MOUNT OUSLEY RD BOTTOM MT OUSLEY MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
207	18-Nov-17	CAR PARKED ON SAFETY RAMP	Hazard	Misc Hazrd	PRINCES (MOUNT OUSLEY RD) MTWY MT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) N	SOUTH	ALL LANES
191	19-Nov-17	Accident: Car	Crash	Car	MOUNT OUSLEY (M1) (PRINCE RD NR RTA BAY NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LG	BOTH DIRECTIONS	ALL LANES
443	23-Nov-17	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY (M1) (PRINCE RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
468	23-Nov-17	Hazard: Debris	Hazard	Debris	M1 (MOUNT OUSLEY RD) (PRI NTH BND JUST BEFORE SPEED CAMERA BOTTOM MOUNT OUSLEY 2	BOTH DIRECTIONS	ALL LANES
575	23-Nov-17	Breakdown: Car	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ONE LANE
138	24-Nov-17	Hazard: Misc Hazrd	Hazard	Misc Hazrd	M1 (MOUNT OUSLEY RD) (PRI GIPPS MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
543	24-Nov-17	B/D UTE IN LANE 1	Breakdown	Car	MOUNT OUSLEY RD N BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
657	24-Nov-17	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD NORTH BOUND - NTH OF MT PLEASANT RD OVER MOUNT OUSLEY 2519 WOLLO	BOTH DIRECTIONS	ALL LANES
226	26-Nov-17	Breakdown: Car CCTV 1154	Breakdown	Car	M1 MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
63	28-Nov-17	Accident: Accident	Crash	Crash	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
89	29-Nov-17	Accident: Accident	Crash	Crash	MOUNT OUSLEY RD PRINCES MTWY KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
254	29-Nov-17	TRUCK B/DOWN	Breakdown	Truck	MT OUSLEY RD/MOUNT OUSLEY	NORTH	ALL LANES
462	29-Nov-17	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
540	29-Nov-17	BREAKDOWN CAR	Breakdown	Car	MT OUSLEY RD/MOUNT OUSLEY	NORTH	ALL LANES
287	30-Nov-17	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD 800MTRS SOUTH OF CLIVE BISSELL DV ON MOUNT OUSLEY 2519 WOLLONGON	BOTH DIRECTIONS	ALL LANES
526	30-Nov-17	Type : Driving Complaint (022)Status :	Hazard	Debris	M1 STH BND MOUNT OUSLEY MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
560	01-Dec-17	Accident: Car	Crash	Car	M1 (MOUNT OUSLEY RD) (PRI STH BOUND NEW MT PLEASANT RD MOUNT OUSLEY 2519 WOLLONG	BOTH DIRECTIONS	ALL LANES

Id	Date	Incident Description	Type	Sub-type	Location Description	Direction	Affected Lanes
466	05-Dec-17	HAZARD - MISSING DRAIN GRATE	Hazard	Misc Hazrd	M1 (MOUNT OUSLEY RD) (PRI MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
555	05-Dec-17	Hazard: Misc Hazrd	Hazard	Misc Hazrd	MOUNT OUSLEY RD BOTTOM MT OUSLEY NTH BD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NS	BOTH DIRECTIONS	ALL LANES
636	06-Dec-17	HAZARD - LADDER	Hazard	Debris	PRINCES MTWY MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
177	07-Dec-17	Police: Traffic	Police	Traffic	PRINCES (MOUNT OUSLEY RD) MTWY PRINCES HWY MOUNT OUSLEY 2519 WOLLONGONG (LGA) NS	BOTH DIRECTIONS	ALL LANES
912	07-Dec-17	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD PRINCES MTWY KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
182	08-Dec-17	CAR B/D N/B	Breakdown	Car	MOUNT OUSLEY RD NORTH BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
208	08-Dec-17	B/D TRUCK	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
434	08-Dec-17	Accident: Truck	Crash	Truck	MOUNT OUSLEY RD NTH BOUND KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
367	09-Dec-17	CAR B/D	Breakdown	Breakdown	MOUNT OUSLEY RD PICTON RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
191	10-Dec-17	B/DOWN CAR	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI N BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
102	13-Dec-17	TRUCK BREAKDOWN **CAM 486**	Breakdown	Breakdown	MT OUSLEY RD/MOUNT OUSLEY	NORTH	ALL LANES
111	13-Dec-17	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
140	16-Dec-17	Accident: Accident	Crash	Crash	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
223	16-Dec-17	Breakdown: Truck	Breakdown	Truck	M1 (MOUNT OUSLEY RD) (PRI MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
68	19-Dec-17	Police: Traffic	Police	Traffic	MOUNT OUSLEY (M1) (PRINCE RD NEAR ARRESTER BED OLD MOUNT OUSLEY 2519 WOLLONGONG	BOTH DIRECTIONS	ALL LANES
585	19-Dec-17	CAR FIRE	Fire	Vehicle	MOUNT OUSLEY RD STH BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
425	20-Dec-17	Accident: Car	Crash	Car	MOUNT OUSLEY RD M1 MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
408	21-Dec-17	Type : Check B/Fides (015)Status : None	Breakdown	Car	PRINCES MTWY MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
311	22-Dec-17	Type : Concern 4 Welfare (017), Driving	Breakdown	Car	PRINCES MTWY NBND 300 M UP FROM BOTTOM OF HILL MOUNT OUSLEY RD KEIRAVILLE 2500 W	NORTH	ONE LANE
123	23-Dec-17	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
47	25-Dec-17	Hazard: Tree Down	Hazard	Tree Down	M1 (MOUNT OUSLEY RD) (PRI NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
107	29-Dec-17	B/DOWN S/B	Breakdown	Car	M1 MTWY/MOUNT OUSLEY	SOUTH	ALL LANES
61	30-Dec-17	HAZARD - DEER	Hazard	Animals	MOUNT OUSLEY RD STH BOUND/ NEW MT PLEASANT OVERPASS MOUNT OUSLEY 2519 WOLLONGONG	SOUTH	ALL LANES
126	30-Dec-17	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NTH BOUND BEFORE THE TRUCK STOP NEW MOUNT PLEASANT RD MOUNT OUSL	BOTH DIRECTIONS	ALL LANES
63	31-Dec-17	Hazard: Misc Hazrd	Hazard	Misc Hazrd	M1 (MOUNT OUSLEY RD) (PRI SBND SAFETY RAMP NR TURN OFF TO MT OUSLE MOUNT OUSLEY	SOUTH	ALL LANES
90	31-Dec-17	Accident: Accident	Crash	Crash	M1 (MOUNT OUSLEY RD) (PRI NTH BD PIC MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
283	31-Dec-17	Police: Traffic	Police	Traffic	MOUNT OUSLEY RD SBND LANES / MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
80	01-Jan-18	Hazard: Debris	Hazard	Debris	MOUNT OUSLEY RD NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
149	01-Jan-18	CAR + TRAILER	Breakdown	Breakdown	MOUNT OUSLEY RD NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
81	06-Jan-18	CAR B/D	Breakdown	Car	M1 MTWY / NEW MT PLEASANT RD / MOUNT OUSLEY	BOTH DIRECTIONS	ALL LANES
170	06-Jan-18	TRUCK B/D	Breakdown	Truck	M1 (MOUNT OUSLEY RD) / MOUNT OUSLEY	NORTH AND SOUTH	ALL LANES
195	06-Jan-18	TRUCK AND CAR B/D	Breakdown	Breakdown	M1 PRINCES MTWY / MOUNT OUSLEY RD / MOUNT OUSLEY	NORTH	ALL LANES
123	08-Jan-18	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD STH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
380	08-Jan-18	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
549	08-Jan-18	Accident: Accident	Crash	Crash	PRINCES (MOUNT OUSLEY RD) MTWY >>> WOLLONGONG 5KMS FROM FAIRY MOUNT OUSLEY 2519	BOTH DIRECTIONS	ALL LANES
285	09-Jan-18	Hazard: Animals	Hazard	Animals	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
178	10-Jan-18	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
354	10-Jan-18	TRUCK V CAR MT OUSLEY	Crash	Crash	PRINCES MTWY/MOUNT OUSLEY RD & UNIVERSITY AVMOUNT OUSLEY 2519 WOLLONGONG (LGA) N	NORTH AND SOUTH	ALL LANES
593	10-Jan-18	Accident: Accident	Crash	Crash	MT OUSLEY RD/MOUNT OUSLEY	BOTH DIRECTIONS	ALL LANES
596	10-Jan-18	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD N BND BOTTOM OF MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
79	11-Jan-18	Hazard: Animals	Hazard	Animals	MOUNT OUSLEY RD APPROX 1KMS FROM TURN OFF TO MOUNT OUSLE MOUNT OUSLEY 2519 WOLLO	BOTH DIRECTIONS	ALL LANES
284	11-Jan-18	HAZARD ANIMAL DEER	Hazard	Animals	MOUNT OUSLEY RD B4 WG TURNOFF S BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
658	11-Jan-18	Tow: Abandoned	Tow	Abandoned	M1 NTH MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
73	12-Jan-18	Breakdown: Truck	Breakdown	Truck	M1 (MOUNT OUSLEY RD) (PRI LANE 1 NTH BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NS	BOTH DIRECTIONS	ALL LANES
29	13-Jan-18	Breakdown: Car	Breakdown	Car	PRINCES (MOUNT OUSLEY RD) MTWY SAFETY RAMP AT BOTTOM OF MT OUSLEY > MOUNT OUSLEY	SOUTH	ALL LANES
117	16-Jan-18	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
137	17-Jan-18	UTE B/D WITH FM AND CHILD CAM 486	Breakdown	Breakdown	M1 (MOUNT OUSLEY RD) (PRI NTH BND LN 1 MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
172	17-Jan-18	TRUCK BD	Breakdown	Truck	MOUNT OUSLEY RD NTH BOUND LANES NEW MOUNT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGO	NORTH	ONE LANE
73	25-Jan-18	Type : Driving Complaint (022)Status :	Breakdown	Truck	M1 (MOUNT OUSLEY RD) NTH BND - LANE 1 OF 3 AT THE TOP NR THE MOUNT OUSLEY 2519 W	BOTH DIRECTIONS	ALL LANES
134	25-Jan-18	Type : Driving Complaint (022)Status :	Hazard	Misc Hazrd	PRINCES (MOUNT OUSLEY RD) MTWY MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
192	27-Jan-18	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NTH BND AT THE BOTTOM OF HILL MOUNT OUSLEY 2519 WOLLONGONG (LGA)	NORTH	ONE LANE
211	28-Jan-18	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY (M1) (PRINCE RD NORTHBOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
277	28-Jan-18	Type : Driving Complaint (022)Status :	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI NTH BND - NEARLY AT THE TOP MOUNT OUSLEY 2519 WOLLONGO	NORTH	ONE LANE
362	30-Jan-18	BREAKDOWN CAR	Breakdown	Car	MOUNT OUSLEY RD STH BND - JUST B4 SAND PIT MOUNT OUSLEY 2519 WOLLONGONG (LGA) NS	SOUTH	ALL LANES
473	30-Jan-18	ACCIDENT 2 CAR / CCTV1154	Crash	Car	MOUNT OUSLEY RD STH BND PRINCES MTWY KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
83	31-Jan-18	MULTI CAR MVA CCTV 486	Crash	Crash	MOUNT OUSLEY RD NORTH BOUND NEW MOUNT PLEASANT MOUNT OUSLEY 2519 WOLLONGONG (LGA	BOTH DIRECTIONS	ALL LANES
154	01-Feb-18	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD S BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
261	01-Feb-18	Accident: Accident	Crash	Crash	MOUNT OUSLEY RD NTH BND NEW MOUNT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LGA)	BOTH DIRECTIONS	ALL LANES
139	02-Feb-18	Hazard: Debris	Hazard	Debris	M1 CD27RQ TRUCK WITH TRAILER WHITE NFD/ MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGO	BOTH DIRECTIONS	ALL LANES
234	02-Feb-18	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD N BND 300M S OF REST AREA LANE 1 MOUNT OUSLEY 2519 WOLLONGONG (L	BOTH DIRECTIONS	ALL LANES
454	02-Feb-18	Police: Traffic	Police	Traffic	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
221	03-Feb-18	UTE BD	Breakdown	Car	PRINCES (MOUNT OUSLEY RD) MTWY S BND GIPPS RD MOUNT OUSLEY 2519 WOLLONGONG (LGA)	SOUTH	ONE LANE
479	05-Feb-18	CAR BD	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI KLO4 SMALL WHITE VEH NBND SIDE PARTWAY U MOUNT OUSLEY	NORTH	ALL LANES
820	06-Feb-18	HAZARD - PED	Hazard	Pedestrian	PRINCES (MOUNT OUSLEY RD) MTWY >>> S PICTON RD MOUNT OUSLEY 2519 WOLLONGONG (LGA	SOUTH	ALL LANES

Id	Date	Incident Description	Type	Sub-type	Location Description	Direction	Affected Lanes
58	07-Feb-18	Type : Driving Complaint (022)Status :	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
663	08-Feb-18	Tyre Debris Mt Ousley	Hazard	Misc Hazrd	PRINCES (MOUNT OUSLEY RD) MTWY NORTHBOUND LANES MOUNT OUSLEY 2519 WOLLONGONG (LG	BOTH DIRECTIONS	ALL LANES
632	09-Feb-18	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD N BND LANE 1 JUST NTH OF NEW MT PLEASANT NEW MT PLEASANT RD MOUN	NORTH	ALL LANES
344	10-Feb-18	Hazard: DEER	Hazard	Animals	M1 (MOUNT OUSLEY RD) (PRI N BND PRIOR TO NEW MT PLEASANT RD MOUNT OUSLEY RD MOUN	BOTH DIRECTIONS	ALL LANES
376	10-Feb-18	Hazard: yellow pipe/hose	Hazard	Misc Hazrd	MOUNT OUSLEY RD S BND - BETW MT OUSLEY RD & UNIVERS MOUNT OUSLEY 2519 WOLLONGON	BOTH DIRECTIONS	ALL LANES
541	14-Feb-18	Type : Driving Complaint (022)Status :	Breakdown	Breakdown	MOUNT OUSLEY RD N OF MT PLESANT RD OVERPASS MOUNT OUSLEY 2519 WOLLONGONG (LGA) N	NORTH	ALL LANES
157	15-Feb-18	TRUCK BREAKDOWN	Breakdown	Truck	MOUNT OUSLEY RD LANE 1 OF 3 NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
270	15-Feb-18	TRUCK BD	Breakdown	Truck	PRINCES MTWY/NEW MOUNT PLEASANT RD/MOUNT OUSLEY	NORTH	ALL LANES
626	16-Feb-18	Hazard: Animals	Hazard	Animals	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
643	16-Feb-18	CAR B/D	Breakdown	Car	M1 MTWY / NEW MT PLEASANT RD / MOUNT OUSLEY	NORTH	ALL LANES
113	18-Feb-18	Accident: Car	Crash	Car	PRINCES (MOUNT OUSLEY RD) MTWY STH BND NEW MT PLEASANT OVERPASS MOUNT OUSLEY 251	BOTH DIRECTIONS	ALL LANES
616	19-Feb-18	Hazard: Tree Down	Hazard	Tree Down	MT OUSLEY RD NTH BOUND NEW MT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NS	BOTH DIRECTIONS	ALL LANES
536	20-Feb-18	DEER ON ROAD	Hazard	Animals	PRINCES (MOUNT OUSLEY RD) MTWY AT THE BACK OF THE UNIVERSITY AT THE BOT MOUNT OU	SOUTH	ALL LANES
248	21-Feb-18	MVA / CAR	Crash	Car	MOUNT OUSLEY RD STH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
424	21-Feb-18	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
370	22-Feb-18	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
297	24-Feb-18	Breakdown: Car	Breakdown	Breakdown	M1 (MOUNT OUSLEY RD) (PRI CLIVE BISSELL DVE MOUNT OUSLEY 2519 WOLLONGONG (LGA) N	BOTH DIRECTIONS	ALL LANES
410	24-Feb-18	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
70	26-Feb-18	ACCIDENT **SEE 074**	Crash	Crash	MOUNT OUSLEY RD N BND - HALF WAY UP PRINCES HIGHWAY MOUNT OUSLEY 2519 WOLLONGONG	NORTH	ALL LANES
309	01-Mar-18	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD N BND-200M N OF NEW MT PLEASANT RD OVER MOUNT OUSLEY 2519 WOLLO	NORTH	ALL LANES
682	02-Mar-18	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY (M1) (PRINCE RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
95	03-Mar-18	Hazard: Misc Hazrd	Hazard	Misc Hazrd	MOUNT OUSLEY RD STH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
257	03-Mar-18	BREAKDOWN CAR	Breakdown	Car	MOUNT OUSLEY RD NORTH BOUND LANE 1 MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
330	05-Mar-18	Breakdown: Breakdown	Breakdown	Breakdown	PRINCES (MOUNT OUSLEY RD) MTWY BEHIND THE UNIVERSITY ON THE BEN>&gt MOUNT OUSLE	BOTH DIRECTIONS	ALL LANES
425	06-Mar-18	HAZARD: TREE	Hazard	Tree Down	MT OUSLEY RD/GOWAN BRAE AV/MOUNT OUSLEY	WEST	ALL LANES
502	06-Mar-18	Breakdown: Car	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI N BND 200MTS PAST NEW MT PLEASANT RD MOUNT OUSLEY 2519	BOTH DIRECTIONS	ALL LANES
445	08-Mar-18	Unknown: Unknown	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
583	08-Mar-18	Hazard: Animals	Hazard	Animals	MOUNT OUSLEY RD S BOUND NR THE RMS INSPECTION BAY MOUNT OUSLEY 2519 WOLLONGONG (	SOUTH	ALL LANES
229	09-Mar-18	Type : Driving Complaint (022)Status :	Fire	Vehicle	MOUNT OUSLEY RD NTHBOUND OPP TRUCK STOP MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
110	10-Mar-18	Hazard: Animals	Hazard	Animals	MOUNT OUSLEY (M1) (PRINCE RD STH BND AT THE TOP OF THE HILL 2-3 KM FR MOUNT OUSL	BOTH DIRECTIONS	ALL LANES
480	12-Mar-18	Hazard: Animals	Hazard	Animals	PRINCES (MOUNT OUSLEY RD) MTWY N BND MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONG	ANY DIRECTION	ALL LANES
555	12-Mar-18	BREAKDOWN - CAR	Breakdown	Car	MOUNT OUSLEY RD JUST BEFORE OVERHEAD BRIDGE MOUNT OUSLEY 2519 WOLLONGONG (LGA) N	BOTH DIRECTIONS	ALL LANES
46	13-Mar-18	Accident: Truck	Crash	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
201	14-Mar-18	Accident: Car	Crash	Car	MOUNT OUSLEY RD UNIVERSITY TURN OFF STH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) N	BOTH DIRECTIONS	ALL LANES
58	15-Mar-18	PED HAZARD	Hazard	Misc Hazrd	PRINCES (MOUNT OUSLEY RD) MTWY NORTH BOUND KEIRAVILLE 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
434	15-Mar-18	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD NTH BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
3	16-Mar-18	B/D CAR	Breakdown	Breakdown	MOUNT OUSLEY RD JUST AFTER UNI N BND PRINCES MTWY KEIRAVILLE 2500 WOLLONGONG (LG	BOTH DIRECTIONS	ALL LANES
4	16-Mar-18	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY (M1) (PRINCE RD N BND - LANE 1 OF 3 MOUNT OUSLEY 2519 WOLLONGONG (L	BOTH DIRECTIONS	ALL LANES
302	17-Mar-18	Hazard: Animals	Hazard	Animals	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
309	17-Mar-18	Police: Traffic CCTV 1154	Police	Traffic	MOUNT OUSLEY (M1) (PRINCE RD NBND - JUST PAST THE UNI/ MOUNT OUSLEY 2519 WOLLONG	BOTH DIRECTIONS	ALL LANES
93	18-Mar-18	B/DOWN TRUCK	Breakdown	Truck	MOUNT OUSLEY RD N BND JUST PAST PI RD GOING UP HILL PICTON RD MOUNT OUSLEY 2519	BOTH DIRECTIONS	ALL LANES
329	24-Mar-18	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD S BOUND LANES - HALF WAY DOWN THE HILL - MOUNT OUSLEY 2519 WOLLO	SOUTH	ALL LANES
257	25-Mar-18	Breakdown: Car + truck	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
329	25-Mar-18	Breakdown: Car	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
460	26-Mar-18	BREAKDOWN - TRUCK	Breakdown	Truck	MOUNT OUSLEY RD NTH BND 300M NTH OF RTA INSP BAY MOUNT OUSLEY 2519 WOLLONGONG (	NORTH	ALL LANES
75	27-Mar-18	Accident: Car	Crash	Car	MOUNT OUSLEY RD OPP OLD MT OUSLEY ROAD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
391	27-Mar-18	BREAKDOWN - CAR	Breakdown	Car	MOUNT OUSLEY RD NTH BND JUST NTH OF NEW MT PLEASANT OVER MOUNT OUSLEY 2519 WOLLO	BOTH DIRECTIONS	ALL LANES
547	27-Mar-18	BREAKDOWN - TRUCK	Breakdown	Truck	MOUNT OUSLEY RD STH BND MEMORIAL DRIVE MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
510	28-Mar-18	HAZARD DEBRIS	Hazard	Debris	M1 (MOUNT OUSLEY RD) (PRI STH BOUND LANE 1 KM NTH OF PICTON ROAD MOUNT OUSLEY 25	SOUTH	ALL LANES
147	29-Mar-18	Accident: Car	Crash	Car	MOUNT OUSLEY RD STH BND 200MTS STH OF NEW MOUNT PLEASANT MOUNT OUSLEY 2519 WOLLO	BOTH DIRECTIONS	ALL LANES
406	29-Mar-18	Accident: Car	Crash	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
98	31-Mar-18	BREAKDOWN CAR	Breakdown	Car	MOUNT OUSLEY RD NTH BOUND - JUST NTH OF NEW MT PLEASANT NEW MOUNT PLEASANT MOUNT	NORTH	ALL LANES
154	31-Mar-18	Hazard: Animals	Hazard	Animals	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
30	01-Apr-18	Hazard: Animals	Hazard	Animals	MOUNT OUSLEY (M1) (PRINCE RD NEW MT PLEASANT MOUNT OUSLEY 2519 WOLLONGONG (LGA)	BOTH DIRECTIONS	ALL LANES
81	01-Apr-18	BREAKDOWN / CAR AND TRAILER	Breakdown	Car	MOUNT OUSLEY RD NTH BND - B4 NEW MT PLEASANT OVERPASS MOUNT OUSLEY 2519 WOLLONGO	NORTH	ALL LANES
54	02-Apr-18	B-DBL B/D CAM 486	Breakdown	Truck	PRINCES (MOUNT OUSLEY RD) MTWY NEW MOUNT PLEASANT MOUNT OUSLEY 2519 WOLLONGONG (	BOTH DIRECTIONS	ALL LANES
60	02-Apr-18	ABANDONED VEH IN SAFETY RAMP	Tow	Abandoned	MOUNT OUSLEY RD SAFETY RAMP MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
300	03-Apr-18	Breakdown: Car	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI 1 MIN UP HILL NTH BND FROM START OF EXPR MT OUSLEY RD	BOTH DIRECTIONS	ALL LANES
90	04-Apr-18	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NTH BND NEW MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
460	06-Apr-18	B/D TRUCK CCTV 486 IN B/D BAY	Breakdown	Truck	M1 (MOUNT OUSLEY RD) (PRI MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
288	07-Apr-18	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
359	07-Apr-18	B/D CAR	Breakdown	Car	MOUNT OUSLEY RD NTH BND NEW MOUNT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LGA)	NORTH	ONE LANE
125	08-Apr-18	Accident: Car	Crash	Car	MOUNT OUSLEY RD NEAR UNI >>> NTH BND PRINCES MTWY KEIRAVILLE 2500 WOLLONGONG (LG	BOTH DIRECTIONS	ALL LANES
159	08-Apr-18	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES

Id	Date	Incident Description	Type	Sub-type	Location Description	Direction	Affected Lanes
27	09-Apr-18	Accident: Accident	Crash	Car	MOUNT OUSLEY (M1) (PRINCE RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	TWO LANES
30	09-Apr-18	Type : Accident (002)Status : Contact I	Crash	Crash	MOUNT OUSLEY RD JUST B4 THE TOP OF THE HILL >>N MOUNT OUSLEY 2519 WOLLONGONG (LG	BOTH DIRECTIONS	ALL LANES
436	09-Apr-18	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD NTH BND NEW MOUNT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LGA)	NORTH	ALL LANES
441	11-Apr-18	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD LANE 1 NTH BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
161	12-Apr-18	BREAKDOWN / TRUCK / CCTV486	Breakdown	Truck	MOUNT OUSLEY RD LANE ONE N BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
575	12-Apr-18	BREAKDOWN TRUCK	Breakdown	Truck	MOUNT OUSLEY RD NORTH BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
161	16-Apr-18	Accident: Car	Crash	Car	M1 (MOUNT OUSLEY RD) (PRI MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
101	22-Apr-18	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD NTH BD JUST PAST PICTON RD OEVRPASS MOUNT OUSLEY 2519 WOLLONGONG	BOTH DIRECTIONS	ALL LANES
282	23-Apr-18	Breakdown: Car CCTV 486	Breakdown	Car	MOUNT OUSLEY RD OPP RMS INSPECTION BAY - N BND- LANE 1 O MOUNT OUSLEY 2519 WOLLO	NORTH	ALL LANES
124	29-Apr-18	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD GAYNOR AVE MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
192	06-May-18	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD NTH BND 200MTS STH OF NEW MOUNT PLEASANT MOUNT OUSLEY 2519 WOLLO	BOTH DIRECTIONS	ALL LANES
147	07-May-18	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
121	08-May-18	Type : Traffic Duties (094)Status : Non	Breakdown	Truck	MOUNT OUSLEY RD NEW MOUNT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
258	08-May-18	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
118	09-May-18	BD - TRUCK- NB - TOW 321861	Breakdown	Car	MOUNT OUSLEY RD NTH BND 200M STH MT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LG	BOTH DIRECTIONS	ALL LANES
145	09-May-18	BD TRUCK - SB	Breakdown	Truck	MOUNT OUSLEY RD STH BND IN NEW MT PLEASANT RD TURN OFF L MOUNT OUSLEY 2519 WOLLO	BOTH DIRECTIONS	ALL LANES
203	09-May-18	Accident: Multi-veh	Crash	Multi-veh	M1 (MOUNT OUSLEY RD) (PRI STH BOUND KEIRAVILLE 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
59	10-May-18	BREAKDOWN - CAR	Breakdown	Car	MOUNT OUSLEY RD NTH BOUND - LANE 3 OF 3 MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
72	10-May-18	4 CAR ACCO	Crash	Car	MOUNT OUSLEY RD NEW MOUNT PLEASANT MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
389	10-May-18	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
589	11-May-18	CAR INTO ARRESTOR BED	Crash	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
278	15-May-18	CAR - BREAKDOWN	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
178	16-May-18	Accident: Car	Crash	Car	PRINCES MTWY 500 METRES FROM INT GOING UP THE HILL &g MOUNT OUSLEY RD KEIRAVILLE	SOUTH	ALL LANES
494	17-May-18	CAR B/D	Breakdown	Breakdown	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
31	18-May-18	CAR BD	Breakdown	Car	MOUNT OUSLEY RD HALF WAY UP MT OUSLEY >> WOOLONGON PRINCESS MTWY MOUNT OUSLEY 25	SOUTH	ONE LANE
11	19-May-18	TRUCK IN STOPPING BAY	Crash	Truck	MOUNT OUSLEY RD HALFWAY DOWN IN EMERGENCY STOPPING BAY MOUNT OUSLEY 2519 WOLLONG	SOUTH	ALL LANES
171	20-May-18	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD N BND-500M N OF NEW MT PLEASANT RD - LAN MOUNT OUSLEY 2519 WOLLO	BOTH DIRECTIONS	ALL LANES
451	21-May-18	Breakdown: Truck	Breakdown	Truck	M1 BTWN FIGTREE EXIT AND UNI NTH BND MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG	BOTH DIRECTIONS	ALL LANES
600	21-May-18	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD NTH BOUND NEAR UNI EXIT OLD MOUNT OUSLEY MOUNT OUSLEY 2519 WOLLO	BOTH DIRECTIONS	ALL LANES
310	29-May-18	Hazard car in safety ramp	Hazard	Misc Hazrd	MT OUSLEY RD/MOUNT OUSLEY	SOUTH	ALL LANES
549	29-May-18	CAR B/D	Breakdown	Breakdown	MOUNT OUSLEY RD SBND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
182	02-Jun-18	Accident: Car	Crash	Car	MOUNT OUSLEY RD LANE 1 NORTH BOUND - NR THE TOP ON CNR MOUNT OUSLEY 2519 WOLLONG	NORTH	ALL LANES
203	02-Jun-18	Accident: Car	Crash	Car	MOUNT OUSLEY RD NTH BOUND - 500M STH OF MT PLEASENT OVER MOUNT OUSLEY 2519 WOLLO	BOTH DIRECTIONS	ALL LANES
138	03-Jun-18	BREAKDOWN - UTE	Breakdown	Car	MOUNT OUSLEY RD S BOUND LANE 2 MOUNT OUSLEY	SOUTH	ALL LANES
389	05-Jun-18	BREAKDOWN 2 X TRUCKS (BOTH IN LANE ONE)	Breakdown	Truck	MOUNT OUSLEY RD NTH BND - NTH OF NEW MT PLEASANT RD NEW MOUNT PLEASANT MOUNT OUS	BOTH DIRECTIONS	ALL LANES
129	06-Jun-18	Type : Traffic Incident (064)Status : N	Breakdown	Truck	MOUNT OUSLEY RD N BND - JUST PAST UNI MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	BREAKDOWN
247	08-Jun-18	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD N BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
266	08-Jun-18	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD N BND NEW MOUNT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) N	BOTH DIRECTIONS	ALL LANES
547	08-Jun-18	Accident: Accident	Crash	Crash	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
44	09-Jun-18	Police: PoliceOptn	Police	PoliceOptn	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
122	09-Jun-18	BREAKDOWN CAR	Breakdown	Car	PRINCES MTWY/MOUNT OUSLEY	SOUTH	ALL LANES
196	09-Jun-18	Hazard: Animals	Hazard	Animals	M1 N BND - B4 REST AREA MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
301	12-Jun-18	Truck in Arrester bed	Crash	Crash	MT OUSLEY RD/MOUNT OUSLEY	SOUTH	NO LANES
319	12-Jun-18	TRUCK SAFETY RAMP CCTV 1154	Breakdown	Truck	PRINCES MTWY NNTA - ON THE SAFETY RAMP MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGON	BOTH DIRECTIONS	ALL LANES
424	14-Jun-18	CAR BD	Breakdown	Car	MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
556	15-Jun-18	HAZARD - DEER	Hazard	Animals	PRINCES MTWY IN VIC MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
572	15-Jun-18	2 CAR MVA	Crash	Car	MOUNT OUSLEY RD S BND 400M PAST NEW MT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG	SOUTH	ALL LANES
581	15-Jun-18	HAZARD - INJURED DEER	Hazard	Animals	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
584	15-Jun-18	Hazard: Animals	Hazard	Animals	M1 MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
585	15-Jun-18	Hazard: Animals	Hazard	Animals	MOUNT OUSLEY RD S BOUND BOTTOM OF MOUNT OUSLEY B4 THE SP MOUNT OUSLEY 2519 WOLLO	BOTH DIRECTIONS	ALL LANES
670	19-Jun-18	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
332	20-Jun-18	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD NORTH BOUND NEW MOUNT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG	NORTH	ALL LANES
456	20-Jun-18	BD TRUCK - OIL SPILL -NB	Hazard	Fluid Spl	MOUNT OUSLEY RD NEW MOUNT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
165	22-Jun-18	DEER HIT BY VEH	Hazard	Animals	MT OUSLEY RD/MOUNT OUSLEY	NORTH	ONE LANE
526	25-Jun-18	BD B DOUBLE	Breakdown	Truck	MOUNT OUSLEY RD NBND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
241	26-Jun-18	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD NTH BND 200MT NTH MOUNT PLEASANT OVERPAS MOUNT OUSLEY 2519 WO	ANY DIRECTION	ALL LANES
684	28-Jun-18	Accident: Accident	Crash	Crash	MOUNT OUSLEY RD BOTTOM OF MT OUSLEY SAND PIT MOUNT OUSLEY 2519 WOLLONGONG (LGA)	SOUTH	ALL LANES
530	03-Jul-18	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD NBND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
166	08-Jul-18	HAZARD - TREEDOWN	Hazard	Tree Down	MT OUSLEY RD/MOUNT OUSLEY	SOUTH	ALL LANES
629	16-Jul-18	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NTH BND NEW PLEASANT RD OVERPASS MOUNT OUSLEY 2519 WOLLONGONG (L	BOTH DIRECTIONS	ALL LANES
813	16-Jul-18	3 ROLLS OF INSULATION	Hazard	Debris	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
51	19-Jul-18	B/D LIGHT RIGID	Breakdown	Truck	MOUNT OUSLEY RD NTH BOUND LANE 1 MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
70	19-Jul-18	TRUCK BREAKDOWN	Breakdown	Truck	MOUNT OUSLEY RD NTH BOUND LANE 1 MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
406	19-Jul-18	Hazard: Debris	Hazard	Debris	MOUNT OUSLEY RD NTH BOUND NEW MT PLEASANT MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES

Id	Date	Incident Description	Type	Sub-type	Location Description	Direction	Affected Lanes
409	24-Jul-18	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
174	28-Jul-18	CAR B/D	Breakdown	Breakdown	MOUNT OUSLEY RD N BND 1KM N OF NEW MOUNT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGON	BOTH DIRECTIONS	ALL LANES
185	01-Aug-18	HAZ - OIL SPILL	Hazard	Fluid Spl	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
149	03-Aug-18	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD LANE 1 N BND NEW MOUNT PLEAsant MOUNT OUSLEY 2519 WOLLONGONG (L	BOTH DIRECTIONS	ALL LANES
208	04-Aug-18	HAZARD SHEEP ON ROAD.	Hazard	Animals	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
59	09-Aug-18	CRASH	Crash	Crash	MOUNT OUSLEY RD NORTHBOUND AT TOP OF THE HILL NEAR THE R MOUNT OUSLEY 2519 WOLLO	BOTH DIRECTIONS	ALL LANES
136	09-Aug-18	HAZARD / C4W / MONITOR	Hazard	Pedestrian	MOUNT OUSLEY RD NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
154	09-Aug-18	BREAKDOWN / CAR	Breakdown	Car	MOUNT OUSLEY RD STH BND JUST SOUTH OF OVER PASS MOUNT OUSLEY 2519 WOLLONGONG (LG	BOTH DIRECTIONS	ALL LANES
414	15-Aug-18	Hazard: Debris	Hazard	Debris	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	ANY DIRECTION	ALL LANES
92	16-Aug-18	Breakdown: Truck	Breakdown	Truck	M1 (MOUNT OUSLEY RD) (PRI NTH BND - NR MOUNT PLEASANT OVERPASS MOUNT OUSLEY 2519	BOTH DIRECTIONS	ALL LANES
447	18-Aug-18	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD KLO4 MITSUBISHI UTE 1 TONNE SBND/ MOUNT OUSLEY 2519 WOLLONGONG (	BOTH DIRECTIONS	ALL LANES
346	20-Aug-18	2 CAR MVA (CCTV 1154)	Crash	Crash	PRINCES (MOUNT OUSLEY RD) MTWY LAST SAFTEY RAMP ON STHBND SIDE MOUNT OUSLEY RD M	BOTH DIRECTIONS	ALL LANES
185	21-Aug-18	Breakdown: Car	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI NTH BND NEW MOUNT PLEASANT MOUNT OUSLEY 2519 WOLLONGON	BOTH DIRECTIONS	ALL LANES
375	24-Aug-18	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD N BND LANE 1 - JUST N OF MT PLEASANT AND MOUNT OUSLEY 2519 WOLLO	BOTH DIRECTIONS	ALL LANES
151	25-Aug-18	Breakdown: Car	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI MT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
527	29-Aug-18	BRKDOWN TRUCK STH BND CAM 1174	Breakdown	Breakdown	M1 (MOUNT OUSLEY RD) (PRI SBND MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA	SOUTH	ALL LANES
136	30-Aug-18	Type : Accident (002)Status : Contact I	Crash	Crash	MOUNT OUSLEY RD JUST PAST UNIVERSITY NBND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
424	31-Aug-18	Breakdown: Abandoned	Breakdown	Breakdown	MT OUSLEY RD/2 km prior bottom of hill MOUNT OUSLEY	SOUTH	ALL LANES
303	01-Sep-18	Crash: Car	Crash	Car	M1 AT THE EXIT/ MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
43	02-Sep-18	HAZARD GOATS	Hazard	Animals	MOUNT OUSLEY RD AT TOP OF THE BIG HILL >>> S BN MOUNT OUSLEY 2519 WOLLONGONG (LG	BOTH DIRECTIONS	ALL LANES
461	03-Sep-18	Police: Traffic	Police	Traffic	MOUNT OUSLEY RD N BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
215	05-Sep-18	BRK DOWN TRUCK NTH BND CCTV 486	Breakdown	Truck	MOUNT OUSLEY RD N BND 500 METRES N OF NEW MT PLEASANT OV MOUNT OUSLEY 2519 WOLLO	NORTH	ALL LANES
479	05-Sep-18	Hazard: Pedestrian	Hazard	Pedestrian	PRINCES (MOUNT OUSLEY RD) MTWY NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
55	06-Sep-18	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
96	07-Sep-18	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
221	07-Sep-18	Hazard: Misc Hazrd	Hazard	Misc Hazrd	MOUNT OUSLEY RD LANE ONE - NTH BOUND - 300-400M FROM BO MOUNT OUSLEY 2519 WOLLO	BOTH DIRECTIONS	ALL LANES
95	09-Sep-18	BREAKDOWN CAR	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI NORTH BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
509	10-Sep-18	HAZARD SHEEP NEAR R/WAY	Hazard	Animals	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
588	11-Sep-18	Hazard: Animals	Hazard	Animals	PRINCES (MOUNT OUSLEY RD) MTWY NORTH BOUND ON M1 MOUNT OUSLEY 2519 WOLLONGONG (L	BOTH DIRECTIONS	ALL LANES
561	12-Sep-18	Crash: Car	Crash	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
442	13-Sep-18	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
361	15-Sep-18	Type : Driving Complaint (022)Status :	Breakdown	Breakdown	MOUNT OUSLEY (PRINCES MTW RD 200M NTH OF NEW MT PLEASANT OVERPASS MOUNT OUSLEY 2	NORTH	ONE LANE
642	21-Sep-18	3 CAR MVA	Crash	Car	MOUNT OUSLEY RD S BND ABOUT HALFWAY DOWN MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
670	21-Sep-18	Crash: Crash	Crash	Crash	M1 (MOUNT OUSLEY RD) (PRI MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
320	24-Sep-18	Hazard: O-Size Veh	Hazard	O-Size Veh	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
344	24-Sep-18	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD 300 M FROM BASE OF MT NTH BOUND MOUNT OUSLEY 2519 WOLLONGONG	NORTH	ALL LANES
386	25-Sep-18	*ES40* B/DOWN TRUCK	Closure	Misc Clsre	M1 (MOUNT OUSLEY RD) (PRI NBND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
585	25-Sep-18	Breakdown: Truck	Breakdown	Truck	M1 (MOUNT OUSLEY RD) (PRI MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
241	27-Sep-18	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD NTH BOUND LANE1 NEW MOUNT PLEASANT RD MOUNT OUSLEY 2519 WOLLONG	BOTH DIRECTIONS	ALL LANES
241	29-Sep-18	Type : Driving Complaint (022)Status :	Breakdown	Breakdown	MOUNT OUSLEY RD STH BD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
217	01-Oct-18	2 CAR ACCIDENT CCTV 1154	Crash	Crash	PRINCES MTWY/MT OUSLEY RD/MOUNT OUSLEY	SOUTH	ALL LANES
286	02-Oct-18	BREAKDOWN TRUCK	Breakdown	Truck	M1 (MOUNT OUSLEY RD) (PRI NTH BND NEW MT PLESANT MOUNT OUSLEY 2519 WOLLONGONG (L	NORTH	ALL LANES
364	03-Oct-18	Type : Driving Complaint (022)Status :	Breakdown	Breakdown	M1 (MOUNT OUSLEY RD) (PRI BOTTOM OF MT OUSLEY OLD MOUNT OUSLEY RD MOUNT OUSLEY 2	BOTH DIRECTIONS	ALL LANES
28	04-Oct-18	CAR IN ARRESTER BED S/B	Crash	Car	MOUNT OUSLEY RD S BND ARRESTER BED NR MT PLEASANT OPASS MOUNT OUSLEY 2519 WOLLON	SOUTH	ALL LANES
421	04-Oct-18	Type : Traffic Incident (064)Status : N	Breakdown	Breakdown	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
560	04-Oct-18	CAR IN ARRESTER BED S/B	Breakdown	Car	M1 MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
127	07-Oct-18	Breakdown: Bus	Breakdown	Bus	MOUNT OUSLEY RD S BND - ABT HALWAY DOWN MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
216	09-Oct-18	DOG - NB	Hazard	Animals	PRINCES (MOUNT OUSLEY RD) MTWY MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
454	09-Oct-18	Breakdown: Bus	Breakdown	Bus	PRINCES (M1) MTWY MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
93	11-Oct-18	CAR STUCK ON SAND AT SAFETY RAMP	Hazard	Misc Hazrd	MOUNT OUSLEY RD STH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
264	13-Oct-18	Hazard: Animals	Hazard	Animals	PRINCES (MOUNT OUSLEY RD) MTWY NTH BD 400MTRS FROM BOTTOM OF MT O MOUNT OUSLEY 2	BOTH DIRECTIONS	ALL LANES
428	15-Oct-18	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD NTH BOUND LANE 1 MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
757	16-Oct-18	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
549	18-Oct-18	CAR BD	Breakdown	Car	MOUNT OUSLEY RD N BND ON FOG LINE MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
109	19-Oct-18	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NTH BND - LANE 1 OF 3 OLD MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLL	BOTH DIRECTIONS	ALL LANES
192	19-Oct-18	ACCIDENT / 4 CAR	Crash	Crash	MOUNT OUSLEY RD STH BND NEW MOUNT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LGA)	BOTH DIRECTIONS	ALL LANES
104	21-Oct-18	BDOWN CAR	Breakdown	Car	MOUNT OUSLEY RD NTH BND 500M B4 NEW MT PLEASANT OVERPAS MOUNT OUSLEY 2519 WOLLO	BOTH DIRECTIONS	ALL LANES
152	27-Oct-18	Hazard: Pedestrian	Hazard	Pedestrian	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	ANY DIRECTION	ALL LANES
435	27-Oct-18	Crash: Car (TOW)	Crash	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
157	30-Oct-18	B/D CAR	Breakdown	Car	MOUNT OUSLEY RD 100M FROM THE TOP NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
563	30-Oct-18	B/D TRUCK	Breakdown	Car	MOUNT OUSLEY RD PICTON RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
68	01-Nov-18	Unknown: Unknown	Breakdown	Breakdown	M1 (MOUNT OUSLEY RD) (PRI MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
579	01-Nov-18	3 CAR MVA	Crash	Car	MOUNT OUSLEY RD VIC RTA INSPECTION BAY- S BND MOUNT OUSLEY 2519 WOLLONGONG (LGA)	BOTH DIRECTIONS	ALL LANES
589	01-Nov-18	TRUCK B/D	Breakdown	Truck	MOUNT OUSLEY RD N BND 500M N OF NEW MOUNT PLEASANT OVERP MOUNT OUSLEY 2519 WOLLO	NORTH	ALL LANES

Id	Date	Incident Description	Type	Sub-type	Location Description	Direction	Affected Lanes
509	02-Nov-18	BRK DOWN N/B	Breakdown	Car	MOUNT OUSLEY RD NTH BD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
807	02-Nov-18	Breakdown: Car	Breakdown	Car	M1 MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
573	06-Nov-18	Hazard: Animals	Hazard	Animals	M1 (MOUNT OUSLEY RD) (PRI RTA BAY N BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
341	09-Nov-18	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
87	10-Nov-18	BD - CAR - SB	Breakdown	Car	MOUNT OUSLEY RD ARRESTER BED - STH BOUND - OLD MOUNT OUSLEY MOUNT OUSLEY 2519 WO	SOUTH	ALL LANES
212	10-Nov-18	CAR INTO SAFETY RAMP - SB - CAM 1154	Crash	Car	M1 (MOUNT OUSLEY RD) (PRI MOUNT OUSLEY RD KEIRAVILLE 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
551	15-Nov-18	Hazard: Misc Hazrd	Hazard	Misc Hazrd	M1 NORTH BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
35	17-Nov-18	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD SAFETY RAMP KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
228	17-Nov-18	Hazard: Animals	Hazard	Animals	M1 NR TRUCK REST STOP APPROX 1 KM FROM THE MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLO	BOTH DIRECTIONS	ALL LANES
359	18-Nov-18	CAR IN SANDTRAP / MONITOR	Crash	Car	MOUNT OUSLEY RD STHBND SAND BANK OLD MT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (	BOTH DIRECTIONS	ALL LANES
400	18-Nov-18	KLO4 BREAKDOWN / CAR / MONITOR	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI N BND ON INCLINE MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOL	NORTH	ALL LANES
56	21-Nov-18	3 CAR MVA	Crash	Car	MOUNT OUSLEY RD NR TRUCK STOP 200M N BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
1026	22-Nov-18	Breakdown: Car	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI NTH BND APPROX 1 KM FROM THE BOTTOM MOUNT OUSLEY 2519	NORTH	ALL LANES
44	23-Nov-18	BRK DOWN NTH BND L1/3	Breakdown	Car	PRINCES (MOUNT OUSLEY RD) MTWY LANE 1 NTHBOUND CLIVE BISSELLMOUNT OUSLEY 2519 WO	NORTH	ALL LANES
359	23-Nov-18	Type : Driving Complaint (022)Status :	Breakdown	Car	MOUNT OUSLEY (PRINCES MTW RD NTH BND - PRIOR TO NEW MT PLEASANT RD NEW MT PLEASA	BOTH DIRECTIONS	ONE LANE
50	24-Nov-18	CAR IN EMERGENCY RAMP	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI STH BND MOUNT OUSLEY\ 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
455	25-Nov-18	BREAKDOWN CAR	Breakdown	Car	MOUNT OUSLEY RD N BOUND NEW MOUNT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LGA)	NORTH	ALL LANES
535	26-Nov-18	2 CAR MVA	Crash	Crash	MT OUSLEY RD/GAYNOR AV/MOUNT OUSLEY	BOTH DIRECTIONS	ALL LANES
172	28-Nov-18	CAR BD MT OUSLEY	Breakdown	Breakdown	MOUNT OUSLEY RD NTH HALF UP MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
77	29-Nov-18	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
32	01-Dec-18	B/DOWN CAR	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI 200M FROM TOP OF MT OUSLEY NEAR TRUCK BA MOUNT OUSLEY	NORTH	ONE LANE
74	02-Dec-18	CAR BREAKDOWN	Breakdown	Car	MOUNT OUSLEY RD NEW MOUNT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
177	02-Dec-18	Hazard: Tree Down	Hazard	Tree Down	MOUNT OUSLEY RD S BND LANE 1 MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
339	02-Dec-18	CAR IN SAFETY RAMP - S/B AT BOTTOM	Breakdown	Car	M1 MTWY/MOUNT OUSLEY	SOUTH	ALL LANES
340	02-Dec-18	BREAKDOWN /CAR / MONITOR	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI BOTTOM SAFETY RAMP MOUNT OUSLEY 2519 WOLLONGONG (LGA)	BOTH DIRECTIONS	ALL LANES
26	07-Dec-18	HAZARD KANGAROO	Hazard	Animals	MOUNT OUSLEY RD NTH BD 800 MTS B4 NEW TRK NEW MT PLEASANT RD MOUNT OUSLEY 2519	BOTH DIRECTIONS	ALL LANES
207	09-Dec-18	BUS B/D	Breakdown	Bus	MOUNT OUSLEY RD LANE 1 OF 3 MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
407	10-Dec-18	TRUCK BD	Breakdown	Truck	M1 (MOUNT OUSLEY RD) (PRI MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ONE LANE
469	13-Dec-18	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD NTH OF NEW MOUNT PLEASNT RD OVER PASS MOUNT OUSLEY 2519 WOLLONGO	NORTH	ONE LANE
658	13-Dec-18	Crash: Crash	Crash	Crash	M1 (MOUNT OUSLEY RD) (PRI MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
54	14-Dec-18	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD NEW MOUNT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
573	14-Dec-18	Crash: Car	Crash	Car	MOUNT OUSLEY RD BOTTOM OF MT OUSLEY IN SAFETY RAMP MOUNT OUSLEY 2519 WOLLONGONG	SOUTH	ALL LANES
614	14-Dec-18	Hazard: Flooding	Hazard	Flooding	M1 (MOUNT OUSLEY RD) (PRI STH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
980	17-Dec-18	Type : Driving Complaint (022)Status :	Breakdown	Breakdown	MOUNT OUSLEY RD NTHBOUND ABT 3KM FROM BTM MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ONE LANE
115	18-Dec-18	CAR B/D	Breakdown	Car	MOUNT OUSLEY RD SOUTH BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
489	18-Dec-18	CAR B/D	Breakdown	Car	MOUNT OUSLEY RD 6 KM S OF PICTON TURNOFF MOUNT OUSLEY 2519 WOLLONGONG (LGA) NS	BOTH DIRECTIONS	ALL LANES
277	21-Dec-18	Hazard: Debris	Hazard	Debris	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	ANY DIRECTION	ALL LANES
206	22-Dec-18	TRAILER ON SAFETY RAMP	Breakdown	Breakdown	MOUNT OUSLEY RD BOTTOM OF MT OUSLEY STH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) N	BOTH DIRECTIONS	ALL LANES
78	25-Dec-18	CAR BD	Breakdown	Car	MOUNT OUSLEY RD N BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
210	25-Dec-18	VEH ON SAFETY RAMP	Hazard	Misc Hazrd	M1 (MOUNT OUSLEY RD) (PRI SBND NEW MOUNT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGON	BOTH DIRECTIONS	ALL LANES
37	28-Dec-18	BRK DOWN SEMI-TRAILER NTH BND CAM 1154	Breakdown	Truck	M1 (MOUNT OUSLEY RD) (PRI N BOUND - LANE 1 NEW MT PLEASANT RD MOUNT OUSLEY 2519	NORTH	ALL LANES
55	30-Dec-18	BREAKDOWN - CAR	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
94	30-Dec-18	Police: PoliceOptn	Police	PoliceOptn	M1 (MOUNT OUSLEY RD) (PRI MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
2	31-Dec-18	Hazard: Misc Hazrd	Hazard	Misc Hazrd	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
177	01-Jan-19	CAR B/D	Police	Traffic	M1 (MOUNT OUSLEY RD) (PRI MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
38	03-Jan-19	Crash: Car	Crash	Car	MOUNT OUSLEY (PRINCES MTW RD STH BND SAND TRAP BOTTOM OF MOUNT OUSLEY 2519 WOLLO	BOTH DIRECTIONS	ALL LANES
202	03-Jan-19	CAR TRAILER B/D	Breakdown	Car	MOUNT OUSLEY RD N BND LANE 1 OF 3 MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
275	04-Jan-19	Breakdown: Car	Breakdown	Car	M1 MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
319	07-Jan-19	BD - CAR - SB SAFETY RAMP	Breakdown	Breakdown	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
111	08-Jan-19	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
380	09-Jan-19	Breakdown: Car	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI NTH BND LANE 1 - UNDER NEW MT PLEASANT R MOUNT OUSLEY	BOTH DIRECTIONS	ALL LANES
420	09-Jan-19	DEER MT OUSLEY	Hazard	Animals	M1 (MOUNT OUSLEY RD) (PRI MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
429	10-Jan-19	MVA (FATAL)	Crash	Crash	PRINCES MTWY N BND ON PAST THE TRUCK STOP MOUNT OUSLEY (CATARACT)2519 WOLLONGONG	NORTH	ALL LANES
34	18-Jan-19	BREAKDOWN CAR	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI N BOUND NEW MOUNT PLEASANT RD MOUNT OUSLEY 2519 WOLLON	BOTH DIRECTIONS	ALL LANES
317	18-Jan-19	CAR BD	Breakdown	Car	MOUNT OUSLEY RD 1ST BEND AFTER UNI >>> MT PLEAS MOUNT OUSLEY 2519 WOLLONGONG (LG	NORTH	ALL LANES
195	20-Jan-19	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD N BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
373	20-Jan-19	Breakdown: Car	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI TOILET BLOCK CLIVE BISSELL MOUNT OUSLEY 2519 WOLLONGON	BOTH DIRECTIONS	ALL LANES
505	21-Jan-19	Type : Accident (002)Status : Contact I	Crash	Car	MOUNT OUSLEY (PRINCES MTW RD >> S BND NORTHWOOD RD MOUNT OUSLEY 2519 WOLLONGONG	SOUTH	ONE LANE
330	22-Jan-19	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD LANE 1 OF 3 N BND 600M N OF INT MOUNT OUSLEY 2519 WOLLONGONG (LG	BOTH DIRECTIONS	ALL LANES
30	24-Jan-19	TRUCK BD MT OUSLEY	Breakdown	Truck	M1 (MOUNT OUSLEY RD) (PRI NBND MT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LGA)	NORTH	ALL LANES
293	27-Jan-19	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD ABOUT 2 KM NTH OF MT PLEASNT RD BRIDGE NEW MT PLEASANT RD MT PLE	BOTH DIRECTIONS	ALL LANES
28	31-Jan-19	BDOWN VAN CAM486	Breakdown	Car	MOUNT OUSLEY RD NEW MT P RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
910	31-Jan-19	BDOWN CAR	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI APPROX 30 MINS FROM THE UNIVERSITY OF WO MOUNT OUSLEY	BOTH DIRECTIONS	ALL LANES
144	03-Feb-19	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD ON SAFETY RAMP PRINCES MTWY KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES

Id	Date	Incident Description	Type	Sub-type	Location Description	Direction	Affected Lanes
169	03-Feb-19	B/D CAR	Crash	Car	MOUNT OUSLEY (PRINCES MTW RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
235	06-Feb-19	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD HALF WAY DOWN STN MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
55	07-Feb-19	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NTHBOUND LANE 1 500M PAST OLD OUSLEY RD MOUNT OUSLEY 2519 WOLLON	BOTH DIRECTIONS	ALL LANES
422	07-Feb-19	BD CAR	Breakdown	Breakdown	MOUNT OUSLEY RD NTHBND JUST PAST MT PLEASANT RD OVERPASS KEIRAVILLE 2500 WOLLONG	BOTH DIRECTIONS	ALL LANES
423	07-Feb-19	BD TRUCK	Breakdown	Breakdown	MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
563	11-Feb-19	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
611	12-Feb-19	BREAKDOWN TRUCK	Breakdown	Truck	M1 NR THE SPEED CAMERA MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
357	13-Feb-19	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY (PRINCES MTW RD 50 M NTH NEW MOUNT PLEASANT RD OVERPASS MOUNT OUSLE	BOTH DIRECTIONS	ALL LANES
564	13-Feb-19	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NORTH BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
137	14-Feb-19	HAZARD - TRUCK IN SAFETY RAMP	Hazard	Misc Hazrd	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
408	14-Feb-19	Breakdown: Truck	Breakdown	Truck	M1 (MOUNT OUSLEY RD) (PRI >> NTH BND VIC OF MT PLEASANT RD O MT OUDLEY RD MOUNT	NORTH	ALL LANES
119	16-Feb-19	TRUCK BREAKDOWN	Breakdown	Truck	MOUNT OUSLEY RD NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
368	16-Feb-19	DEER MT OUSLEY	Hazard	Animals	PRINCES (MOUNT OUSLEY RD) MTWY N BND HALF UP HILL MOUNT OUSLEY 2519 WOLLONGONG (	BOTH DIRECTIONS	ALL LANES
32	17-Feb-19	CAR FIRE BULLI LOOKOUT	Fire	Vehicle	PRINCES MTWY APPROX 5 MINS N OF MT OUSLEY RD MOUNT OUSLEY RD KEIRAVILLE 2500 WOL	NORTH	ALL LANES
165	18-Feb-19	BDOWN 4WD N/B	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
181	18-Feb-19	BDOWN TRUCK N/B	Breakdown	Truck	MOUNT OUSLEY RD 300m STH OF X NEW MT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (L	BOTH DIRECTIONS	ALL LANES
388	18-Feb-19	BDOWN TRUCK N/B	Breakdown	Truck	MOUNT OUSLEY RD NTH BOUND - 300M BEFORE THE TRUCK STOP MOUNT OUSLEY 2519 WOLLONG	BOTH DIRECTIONS	ALL LANES
668	20-Feb-19	BREAKDOWN / CAR	Breakdown	Car	MOUNT OUSLEY RD NEW PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
47	23-Feb-19	B/D VEH N/B LANE 1	Breakdown	Breakdown	MOUNT OUSLEY RD N BND 1/2 WAY BTW NEW MT PLEASANT RD &MOUNT OUSLEY 2519 WOLLONGO	NORTH	ALL LANES
45	26-Feb-19	BREAKDOWN / 2 CARS	Breakdown	Car	MOUNT OUSLEY RD NTH BD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
103	26-Feb-19	BD TRUCK EB CCTV 1154	Breakdown	Truck	MOUNT OUSLEY RD STH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ONE LANE
544	28-Feb-19	Truck B/Down Mt Ousey	Breakdown	Truck	M1 NEW MOUNT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
589	04-Mar-19	Crash: Car	Crash	Car	MOUNT OUSLEY RD S BND - MOUNT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
717	04-Mar-19	B/DOWN CAR	Breakdown	Car	MOUNT OUSLEY RD SAFETY RAMP PRINCES MTWY KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
191	07-Mar-19	Hazard: Misc Hazrd	Hazard	Misc Hazrd	MOUNT OUSLEY RD NBND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
669	08-Mar-19	Hazard: Animals	Hazard	Animals	MOUNT OUSLEY RD NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
349	09-Mar-19	CAR BD MT OUSLEY	Breakdown	Car	MOUNT OUSLEY RD NTH BND - LANE 1 - BTW CLIVE BISSELL &a MOUNT OUSLEY 2519 WOLLO	NORTH	ALL LANES
14	14-Mar-19	TRUCK IN SAFETY RAMP CAM 1154	Crash	Truck	M1 (MOUNT OUSLEY RD) (PRI STH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
476	16-Mar-19	CAR IN SAFETY RAMP CAM1154	Hazard	Misc Hazrd	M1 (MOUNT OUSLEY RD) (PRI STH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
677	17-Mar-19	CAR BD	Breakdown	Car	MOUNT OUSLEY (PRINCES MTW RD E BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
166	18-Mar-19	CAR BD MT OUSLEY	Breakdown	Breakdown	MOUNT OUSLEY RD NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
193	20-Mar-19	MVA MT OUSLEY	Crash	Crash	M1 (MOUNT OUSLEY RD) (PRI STH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
155	22-Mar-19	Type : Traffic Incident (064)Status : N	Hazard	Misc Hazrd	MOUNT OUSLEY RD NTH BOUND 200 METRES STH OF PI RD MOUNT OUSLEY 2519 WOLLONGONG (	BOTH DIRECTIONS	ALL LANES
218	22-Mar-19	Type : Traffic Incident (064)Status : N	Breakdown	Truck	MOUNT OUSLEY RD 1 KM NTH OF MT PLEASANT RD OVERPASS MOUNT OUSLEY 2519 WOLLONGONG	NORTH	ONE LANE
354	25-Mar-19	TRUCK BREAKDOWN	Breakdown	Truck	MOUNT OUSLEY RD/PRINCES HWY/KEIRAVILLE	NORTH	ALL LANES
491	28-Mar-19	Hazard: Animals	Hazard	Animals	PRINCES MTWY NTH BND - AROUND THE BEND AFTER THE BRIC MOUNT OUSLEY RD KEIRAVILLE	BOTH DIRECTIONS	ALL LANES
379	29-Mar-19	BD TRUCK NB	Breakdown	Truck	MOUNT OUSLEY RD 2KM NTH OF MT PLEASANT RD OVERPASS NTH B MOUNT OUSLEY 2519 WOLLO	NORTH	ALL LANES
522	29-Mar-19	5 VEH MVA - NB - CCTV 1322	Crash	Crash	M1 NR THE SIGN SAYING UNIVERSITY BOTANICAL MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLO	BOTH DIRECTIONS	ALL LANES
537	29-Mar-19	5 VEH MAV - NB - CCTV 1322	Crash	Multi-veh	M1 NR THE SIGN SAYING UNIVERSITY BOTANICAL MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLO	BOTH DIRECTIONS	ALL LANES
441	30-Mar-19	TRUCK BREAKDOWN	Breakdown	Truck	MOUNT OUSLEY RD LANE 1 N BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
201	31-Mar-19	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NTH BND LANE 1 MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
229	31-Mar-19	CAR B/DWN NTH BND L1	Breakdown	Car	PRINCES (MOUNT OUSLEY RD) MTWY MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA	BOTH DIRECTIONS	ALL LANES
40	01-Apr-19	Breakdown: Car	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI NBND JUST BEFORE TRUCK STOP MT PLEASANT RD MOUNT OUSLE	BOTH DIRECTIONS	ALL LANES
492	03-Apr-19	B/D CAR	Breakdown	Car	MT OUSLEY RD/MOUNT OUSLEY	SOUTH	ONE LANE
539	03-Apr-19	BREAKDOWN TRUCK	Crash	Crash	PRINCES MTWY/MT OUSLEY RD/MOUNT OUSLEY	BOTH DIRECTIONS	ALL LANES
540	03-Apr-19	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
588	03-Apr-19	Breakdown: Car - NIL FIND	Breakdown	Car	MOUNT OUSLEY RD JUST B4 OVERPASS/ NEW MT PLEASANT MOUNT OUSLEY 2519 WOLLONGONG (	BOTH DIRECTIONS	ALL LANES
490	05-Apr-19	Crash: Car (CCTV 1154)	Crash	Car	M1 (MOUNT OUSLEY RD) (PRI STH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
571	05-Apr-19	Breakdown: Truck	Breakdown	Truck	PRINCES (MOUNT OUSLEY RD) MTWY NTH BOUND MT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGO	NORTH	ALL LANES
294	06-Apr-19	Crash: Car	Crash	Car	MOUNT OUSLEY RD N BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
901	08-Apr-19	Breakdown: Car	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI STH BND NEW MOUNT PLEASANT OVERPASS MOUNT OUSLEY 2519	BOTH DIRECTIONS	ALL LANES
576	09-Apr-19	B/D TRUCK	Breakdown	Truck	MOUNT OUSLEY RD N BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
481	10-Apr-19	MVA CAR v DEER	Hazard	Animals	MOUNT OUSLEY RD NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
417	12-Apr-19	Hazard: Pedestrian	Hazard	Pedestrian	PRINCES (MOUNT OUSLEY RD) MTWY MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
340	14-Apr-19	DEBRIS - GAS BOTTLE	Hazard	Debris	MOUNT OUSLEY RD SOUTH BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
286	17-Apr-19	B/D CAR - CCTV 486	Breakdown	Car	MOUNT OUSLEY RD N BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
54	19-Apr-19	Breakdown: Breakdown	Breakdown	Breakdown	M1 (MOUNT OUSLEY RD) (PRI S BND CATARACT CREEK MOUNT OUSLEY 2519 WOLLONGONG (LGA	BOTH DIRECTIONS	ALL LANES
61	19-Apr-19	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
78	21-Apr-19	TRUCK BREAKDOWN	Breakdown	Breakdown	MOUNT OUSLEY RD STH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
160	21-Apr-19	MEDICAL INCIDENT	Breakdown	Breakdown	M1 (MOUNT OUSLEY RD) (PRI MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
230	24-Apr-19	BDOWN TRUCK	Breakdown	Truck	MOUNT OUSLEY RD NTHBOUND NR NEAR NOISE CAMERA MOUNT OUSLEY 2519 WOLLONGONG (LGA)	EAST	ALL LANES
316	24-Apr-19	Breakdown: Car	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI NRTH BND - APPROX 10 KMS FROM WOLLONGONG MOUNT OUSLEY	BOTH DIRECTIONS	ALL LANES
92	26-Apr-19	BREAKDOWN - CAR OUT OF FUEL	Breakdown	Car	MOUNT OUSLEY RD STH BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
15	29-Apr-19	HAZARD / DEER ON SIDE OF RD	Hazard	Animals	M1 (MOUNT OUSLEY RD) (PRI MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES

Id	Date	Incident Description	Type	Sub-type	Location Description	Direction	Affected Lanes
320	29-Apr-19	CRASH / 2 CAR / MONITOR CCTV 1154	Crash	Car	M1 SOUTH FROM SAFETY RAMP MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
185	30-Apr-19	CAR IN SAND TRAP C*1154	Breakdown	Car	MOUNT OUSLEY RD BOTTOM SAND TRAP OLD MOUNT OUSLEY MOUNT OUSLEY 2519 WOLLONGONG (	BOTH DIRECTIONS	ALL LANES
522	30-Apr-19	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD NTH BOUND- LANE ONE NEW MOUNT PLEASANT RD MOUNT OUSLEY 2519 WOLL	BOTH DIRECTIONS	ALL LANES
372	02-May-19	Hazard: Pedestrian	Hazard	Pedestrian	MOUNT OUSLEY RD MT OUSLEY NORTH ABOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
678	06-May-19	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
591	09-May-19	4 CAR MVA (CCTV 486)	Crash	Crash	MOUNT OUSLEY RD 1KM UP THE HILL SOUTH BOUND FROM INT M1 KEIRAVILLE 2500 WOLLONG	BOTH DIRECTIONS	ALL LANES
220	11-May-19	B/D CAR	Breakdown	Car	MOUNT OUSLEY RD NTH BOUND LANE 1 MOUNT PLEASANT MOUNT OUSLEY 2519 WOLLONGONG (LG	BOTH DIRECTIONS	ONE LANE
373	13-May-19	TRUCK DROPPING ROCKS	Hazard	Misc Hazrd	PRINCES MTWY KLO4 B DOUBLE WHITE CAB AND ALIUMINIUM S MOUNT OUSLEY RD KEIRAVILLE	NORTH	ALL LANES
430	13-May-19	Breakdown: Truck	Breakdown	Truck	M1 (MOUNT OUSLEY RD) (PRI N BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
199	14-May-19	TRUCK AND CAR MVA (CCTV 1322)	Crash	Truck	PRINCES (MOUNT OUSLEY RD) MTWY MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
447	14-May-19	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD NTH BND - NTH OF NEW MT PLESANT RD MOUNT OUSLEY 2519 WOLLONGONG	BOTH DIRECTIONS	ALL LANES
507	15-May-19	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NBND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
183	18-May-19	B/D CAR - N/B LANE 1	Police	Traffic	M1 (MOUNT OUSLEY RD) (PRI LN 1 NBND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
386	18-May-19	Breakdown Mt Ousley	Breakdown	Car	PRINCES MTWY/MOUNT OUSLEY	SOUTH	BREAKDOWN
388	18-May-19	Type : Check B/Fides (015)Status : None	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI S BND AT THE SAFETY RAMP MOUNT OUSLEY RD MOUNT OUSLEY	SOUTH	BREAKDOWN
169	21-May-19	BD - CAR/TRAILER - NB	Breakdown	Breakdown	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
234	21-May-19	BD - B DOUBLE - NB - TOW 343312	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
197	25-May-19	2 CAR MVA SB	Crash	Car	M1 S BND MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
846	27-May-19	HAZ - TREE DOWN	Hazard	Tree Down	M1 (MOUNT OUSLEY RD) (PRI S BND MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LG	SOUTH	ALL LANES
62	30-May-19	CRASH - 5 CARS	Crash	Car	MOUNT OUSLEY RD NTHBND PAST THE UNI - MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
64	30-May-19	Crash: Crash	Crash	Crash	PRINCES (MOUNT OUSLEY RD) MTWY MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
266	31-May-19	Hazard: Misc Hazrd	Hazard	Misc Hazrd	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
211	01-Jun-19	BREAKDOWN	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI N BOUND AT THE BOTTOM OF MT OUSLEY MOUNT OUSLEY 2519 W	NORTH	ALL LANES
725	03-Jun-19	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD SAND TRAP BOTTOM OF MT OUSLEY RD S BOUN MOUNT OUSLEY 2519 WOLLO	BOTH DIRECTIONS	ALL LANES
57	05-Jun-19	CRASH CCTV 486	Crash	Crash	MOUNT OUSLEY RD APPROX 1KM NTH OF INT GOWAN BRAE AVE MOUNT OUSLEY 2519 WOLLONGON	BOTH DIRECTIONS	ALL LANES
79	08-Jun-19	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD NORTH BND - UP THE HILL MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
126	10-Jun-19	MOTORCYCLE BD - NB	Breakdown	Motorcycle	PRINCES (MOUNT OUSLEY RD) MTWY NBND APPROACHING NEW MT PLEASANT RD NEW MOUNT PLE	NORTH	ALL LANES
183	10-Jun-19	CAR BD CAM 1154	Crash	Crash	M1 MTWY/MOUNT OUSLEY	SOUTH	ALL LANES
566	14-Jun-19	HAZARD - DEBRIS *SC*	Hazard	Debris	M1 (MOUNT OUSLEY RD) (PRI MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
377	15-Jun-19	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD BOTTOM MOUNT OUSLEY MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
643	20-Jun-19	BD - CAR - SB	Police	Traffic	M1 (MOUNT OUSLEY RD) (PRI SAND BAY MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
516	27-Jun-19	Hazard: Misc Hazrd	Hazard	Misc Hazrd	MOUNT OUSLEY RD ARRESTER BED STH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
71	28-Jun-19	Breakdown: Car	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI 400 MT SOUTH OF CLIVE BISSEL TURN OFF MOUNT OUSLEY 251	NORTH	ONE LANE
56	02-Jul-19	JUP JOB > CMCS INC 053	Breakdown	Truck	MOUNT OUSLEY (PRINCES MTW RD LANE 1 OF 3 NTH BND NR MT PLEASANT OVERB MOUNT OUSL	BOTH DIRECTIONS	ALL LANES
26	03-Jul-19	B/D TRUCK 345672	Breakdown	Truck	MOUNT OUSLEY (PRINCES MTW RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
660	04-Jul-19	OH DEER	Hazard	Animals	MOUNT OUSLEY RD NEAR THE RTA STOP MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
831	04-Jul-19	BREAKDOWN MCYCLE	Breakdown	Motorcycle	MOUNT OUSLEY (PRINCES MTW RD JUST N OF THE NEW MOUNT PLEASENT OVERPAS MOUNT OUSL	NORTH	ALL LANES
213	07-Jul-19	BREAKDOWN - CAR	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
188	11-Jul-19	Breakdown: Truck	Breakdown	Truck	M1 S BND MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	SOUTH	BREAKDOWN
223	11-Jul-19	Breakdown: Bus	Breakdown	Bus	MOUNT OUSLEY (PRINCES MTW RD BUS BROKEN DOWN S PRINCES MOUNT OUSLEY 2519 WOLLONG	SOUTH	ALL LANES
519	11-Jul-19	Breakdown: Truck	Breakdown	Truck	M1 (MOUNT OUSLEY RD) (PRI MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
131	13-Jul-19	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD N BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
91	15-Jul-19	TRUCK B/D	Breakdown	Truck	M1 (MOUNT OUSLEY RD) (PRI MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
606	18-Jul-19	Type : Accident (002)Status : None Spec	Crash	Crash	MOUNT OUSLEY (PRINCES MTW RD SOUTH BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ONE LANE
316	22-Jul-19	2 CAR MVA	Breakdown	Car	MOUNT OUSLEY RD S BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
422	22-Jul-19	CAR B/D	Breakdown	Car	PRINCES MTWY > SBND ON THE FORK INT MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (	SOUTH	ALL LANES
173	24-Jul-19	B/DOWN TRUCK	Breakdown	Breakdown	MOUNT OUSLEY RD STH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
810	24-Jul-19	Crash: Car	Crash	Car	MOUNT OUSLEY RD SAND TRAP BOTTOM OF OUSLEY MOUNT OUSLEY 2519 WOLLONGONG (LGA) NS	BOTH DIRECTIONS	ALL LANES
438	30-Jul-19	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
59	31-Jul-19	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY (PRINCES MTW RD 500 MTRS STH OF THE OVERPASS - LANE 1 - NEW MT PLEA	BOTH DIRECTIONS	ALL LANES
411	31-Jul-19	B/D TRUCK	Breakdown	Truck	MOUNT OUSLEY RD FROM TOP - LANE 1 MOUNT OUSLEY-N BND MOUNT OUSLEY 2519 WOLLONGON	NORTH	ONE LANE
260	01-Aug-19	Hazard: Misc Hazrd	Hazard	Misc Hazrd	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
386	02-Aug-19	BD - TRUCK - SB	Breakdown	Truck	PRINCES MTWY/CLIVE BISSELL/MOUNT OUSLEY	SOUTH	ONE LANE
475	02-Aug-19	B/DOWN TRUCK	Breakdown	Car	MOUNT OUSLEY RD NTH BND HALF WAY UP MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
180	10-Aug-19	BREAKDOWN CAR	Breakdown	Car	MOUNT OUSLEY RD NTH BOUND 300M AFTER NEW MT PLEASANT NEW MOUNT PLEASANT MOUNT OU	NORTH	ALL LANES
59	12-Aug-19	Type : Driving Complaint (022)Status :	Breakdown	Truck	MOUNT OUSLEY RD S BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	BREAKDOWN
211	14-Aug-19	CRASH - CCTV 486	Crash	Crash	MOUNT OUSLEY RD STH BND STH OF THE MT PLEASANT TURN OFF NEW MT PLEASANT RD MOUNT	BOTH DIRECTIONS	ALL LANES
257	17-Aug-19	Breakdown: Car C*1154	Breakdown	Car	MOUNT OUSLEY RD BOTTOM SAND TRAP OLD MOUNT OUSLEY MOUNT OUSLEY 2519 WOLLONGONG (	BOTH DIRECTIONS	ALL LANES
294	17-Aug-19	CRASH - CAR CAM 1154	Crash	Car	MOUNT OUSLEY RD STH BD BOTTOM SAND TRAP MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
297	17-Aug-19	Hazard: Misc Hazrd	Hazard	Misc Hazrd	MOUNT OUSLEY RD STH BND - SAND TRAP MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
83	18-Aug-19	Crash: Car	Crash	Car	MOUNT OUSLEY RD N BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
129	26-Aug-19	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NTH BOUND LANE 1 MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
150	26-Aug-19	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD STH BOUND M1 WHERE THE SAND TRAP IS MOUNT OUSLEY 2519 WOLLONG	ANY DIRECTION	ALL LANES
437	26-Aug-19	BDOWN CAR	Breakdown	Car	MOUNT OUSLEY RD NTH BOUND LANE 1 MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES

Id	Date	Incident Description	Type	Sub-type	Location Description	Direction	Affected Lanes
208	28-Aug-19	3 CAR CRASH	Crash	Crash	MOUNT OUSLEY RD STH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
244	04-Sep-19	3 CAR MVA	Crash	Multi-veh	MOUNT OUSLEY RD SBND JUST PAST MT PLEASANT RD OVERPASS MOUNT OUSLEY 2519 WOLLONG	SOUTH	ALL LANES
545	05-Sep-19	BD - CAR - NB - FUEL	Breakdown	Car	MOUNT OUSLEY RD NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
483	10-Sep-19	CAR B/D	Breakdown	Breakdown	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
535	10-Sep-19	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
154	12-Sep-19	ABANDONED TOW 348905	Police	PoliceOptn	MOUNT OUSLEY RD STH BOUND - SAFTEY RAMP AT THE BOTTOM OLD MOUNT RD MOUNT OUSLEY	BOTH DIRECTIONS	ALL LANES
464	12-Sep-19	BD TRUC K	Breakdown	Truck	MOUNT OUSLEY RD 300M STH OF NEW MOUTN PLEASANT RD OVERPA MOUNT OUSLEY 2519 WOLLO	BOTH DIRECTIONS	ALL LANES
320	14-Sep-19	HAZARD TREE	Hazard	Tree Down	MOUNT OUSLEY RD NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
673	18-Sep-19	CAR IN SAND TRAP	Crash	Car	MOUNT OUSLEY (PRINCES MTW RD SAFTEY RAMP AT THE BOTTOM OF THE HILL MOUNT OUSLEY	BOTH DIRECTIONS	ALL LANES
720	18-Sep-19	Breakdown: Truck	Breakdown	Truck	MT OUSLEY RD/MOUNT OUSLEY	SOUTH	ONE LANE
760	18-Sep-19	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
122	20-Sep-19	Crash: Car	Crash	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
526	20-Sep-19	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	ANY DIRECTION	ALL LANES
569	20-Sep-19	BDOWN CAR NB	Police	Traffic	MOUNT OUSLEY RD LANE 3 NTH BND 50M FROM CLIVE BISSELL MOUNT OUSLEY 2519 WOLLONGO	BOTH DIRECTIONS	ALL LANES
126	21-Sep-19	Breakdown: Car *1154	Breakdown	Car	M1 S BOUND MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
146	21-Sep-19	SINGLE CAR MVA **1154	Crash	Car	MOUNT OUSLEY RD NR UNIVERSITY NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
161	22-Sep-19	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NTH BOUND - JUST UP FROM BOTTOM OF THE H NEW MOUNT PLEASANT MOUN	BOTH DIRECTIONS	ALL LANES
115	23-Sep-19	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD 1 OF 3 NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
177	27-Sep-19	Breakdown: Motorcycle	Breakdown	Motorcycle	MOUNT OUSLEY RD NORTH BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
242	29-Sep-19	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD S BOUND NEW MT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NS	BOTH DIRECTIONS	ALL LANES
428	30-Sep-19	Type : Driving Complaint (022)Status :	Crash	Car	MOUNT OUSLEY RD STHBOUND 150M STH MT OUSLEY OVERPASS MOUNT OUSLEY 2519 WOLLONGON	SOUTH	ONE LANE
436	30-Sep-19	Type : Driving Complaint (022)Status :	Breakdown	Truck	MOUNT OUSLEY RD NTH BOUND SHOULDER MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	BREAKDOWN
756	30-Sep-19	Crash: Crash	Crash	Crash	MOUNT OUSLEY RD STH BND HALF WAY DOWN THE HILL MOUNT OUSLEY 2519 WOLLONGONG (LGA	BOTH DIRECTIONS	ALL LANES
490	01-Oct-19	BREAKDOWN TRUCK CAM1154	Breakdown	Truck	M1 MOUNT OUSLEY RD/MOUNT OUSLEY	SOUTH	ALL LANES
533	03-Oct-19	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD STH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
131	12-Oct-19	BD - TRUCK - NB - CAM 486	Breakdown	Breakdown	MOUNT OUSLEY RD N BND - NTH OF NEW MT PLEASANT OVER PASS MOUNT OUSLEY 2519 WOLLO	NORTH	ALL LANES
209	15-Oct-19	BREAKDOWN / TRUCK	Breakdown	Truck	MOUNT OUSLEY RD NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
712	18-Oct-19	B/D TRUCK	Breakdown	Truck	M1 (PRINCES MTWY) NTH BOUND MT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
38	19-Oct-19	REG- TABLE IN RD - SB?	Hazard	Debris	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
220	19-Oct-19	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD SAND TRAP BOTTOM MOUNT OUSLEY MOUNT OUSLEY 2519 WOLLONGONG (LGA)	BOTH DIRECTIONS	ALL LANES
71	21-Oct-19	OVERSIZE TRUCK	Breakdown	Truck	M1 (MOUNT OUSLEY RD) (PRI TRUCK STOP STH BOUND MT OUSLEY MOUNT OUSLEY 2519 WOLLO	BOTH DIRECTIONS	ALL LANES
765	21-Oct-19	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
470	26-Oct-19	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD N BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
235	27-Oct-19	BREAKDOWN / CAR	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
460	30-Oct-19	BD TRUCK SB	Breakdown	Truck	MOUNT OUSLEY RD 300M S OF REST AREA - SBND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NS	BOTH DIRECTIONS	ALL LANES
471	30-Oct-19	P4 CRASH SB	Crash	Crash	MOUNT OUSLEY RD SBND 100 M SOUTH NEW MT PLEASANT OVERBDG MOUNT OUSLEY 2519 WOLLO	BOTH DIRECTIONS	BREAKDOWN
474	30-Oct-19	BD B-DOUBLE SB	Breakdown	Truck	MOUNT OUSLEY RD LEFT HAND TURN BAY 50M N NEW MT PLEASANT MOUNT OUSLEY 2519 WOLLO	BOTH DIRECTIONS	ALL LANES
174	07-Nov-19	REG - B/DOWN CAR	Breakdown	Breakdown	MOUNT OUSLEY RD N BOUND NEW MOUNT PLEASANT OVERPASS MOUNT OUSLEY 2519 WOLLONGONG	BOTH DIRECTIONS	ALL LANES
535	07-Nov-19	REG Breakdown: Truck <CLEARED>	Breakdown	Truck	M1 (MOUNT OUSLEY RD) (PRI S BOUND BOTTOM OF MOUNT OUSLEY MOUNT OUSLEY 2519 WOLLO	SOUTH	ALL LANES
284	09-Nov-19	REG Breakdown: Breakdown	Breakdown	Breakdown	M1 MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
203	11-Nov-19	REG Breakdown: Truck	Breakdown	Truck	M1 (MOUNT OUSLEY RD) (PRI NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
505	12-Nov-19	REG - BREAKDOWN TRUCK	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
200	13-Nov-19	REG > Hazard: Fluid Spl	Hazard	Fluid Spl	MOUNT OUSLEY RD CATARACT 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
372	14-Nov-19	REG BREAKDOWN CRANE	Breakdown	Truck	M1 MWY MOUNT OUSLEY RD NBND NORTH OF NEW MOUNT PLEASANT RD OVERPASS MOUNT OUSLEY	NORTH	ALL LANES
482	18-Nov-19	Truck B/Down Mt Ousley Rd	Breakdown	Breakdown	PRINCES (MOUNT OUSLEY RD) MTWY MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
544	19-Nov-19	REG - BD TRUCK	Breakdown	Truck	M1 (MOUNT OUSLEY RD) (PRI LANE 1 OF 3 - N BOUND MOUNT OUSLEY 2519 WOLLONGONG (LG	NORTH	ALL LANES
654	19-Nov-19	Breakdown: Truck	Breakdown	Truck	MT OUSLEY RD/MOUNT OUSLEY	NORTH	ONE LANE
69	20-Nov-19	REG- M'CYCLE CRASH CAM 1154	Crash	Crash	MT OUSLEY RD/MOUNT OUSLEY	NORTH	ALL LANES
111	21-Nov-19	REG CRASH TRUCK CCTV 1154	Crash	Truck	M1 MTWY/F6 PRINCES MTY/MOUNT OUSLEY	SOUTH	ONE LANE
507	25-Nov-19	REG Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD JUST SOUTH OF THE NEW MOUNT OUSLEY OVERP KEIRAVILLE 2500 WOLLONG	BOTH DIRECTIONS	ALL LANES
198	26-Nov-19	Crash: Crash	Crash	Crash	MOUNT OUSLEY RD STH BND JUST B4 WG EXIT MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
93	30-Nov-19	REG TRUCK BREAKDOWN	Breakdown	Truck	M1 N BND LANE 1 MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
108	02-Dec-19	REG - 3 CAR CRASH +SC/HLTR	Crash	Crash	MOUNT OUSLEY RD X NR NEW MT PLEASANT BRIDGE MOUNT OUSLEY 2519 WOLLONGONG (LGA) N	BOTH DIRECTIONS	ALL LANES
385	02-Dec-19	REG - BD TRUCK SB - SAFETY RAMP	Breakdown	Truck	M1 MTWY/MOUNT OUSLEY	SOUTH	BREAKDOWN
588	02-Dec-19	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD NTH BOUND NEW MOUNT PLEASANT OVERPASS MOUNT OUSLEY 2519 WOLLONGO	BOTH DIRECTIONS	ALL LANES
109	03-Dec-19	B/D CAR	Breakdown	Car	M1 MTWY/MT OUSLEY RD/MOUNT OUSLEY	NORTH	ALL LANES
420	04-Dec-19	REG B/D CAR W/ BOAT	Breakdown	Car	MT OUSLEY RD/MOUNT OUSLEY	NORTH	ALL LANES
522	10-Dec-19	REG 2 X BD TRUCKS NB	Breakdown	Truck	M1 (MOUNT OUSLEY RD) (PRI LANE 1 N BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
425	13-Dec-19	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD S BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
76	14-Dec-19	REG BRK DOWN CAR NB L1/3	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
311	19-Dec-19	Breakdown: Truck Mount Ousley -REG-	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
324	19-Dec-19	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD NEW MT PLEASANT OVERPASS MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
11	20-Dec-19	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NTH MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
201	21-Dec-19	PICTON RD CLOSURE WEST BND	Police	PoliceOptn	M1 (MOUNT OUSLEY RD) (PRI TRUCK STOP AT TOP OF MT OUSLEY N BND MOUNT OUSLEY 2519	BOTH DIRECTIONS	ALL LANES

Id	Date	Incident Description	Type	Sub-type	Location Description	Direction	Affected Lanes
89	22-Dec-19	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD 1KM UP - ON BLIND CNR - NTH BOUND MOUNT OUSLEY 2519 WOLLONGONG (	BOTH DIRECTIONS	ALL LANES
171	24-Dec-19	Police: Incident	Police	Incident	M1 (MOUNT OUSLEY RD) (PRI NTH BOUND - FIRST CLIMB FROM MT OUSLEY MOUNT OUSLEY 25	NORTH	ALL LANES
48	27-Dec-19	REG BREAKDOWN	Breakdown	Breakdown	M1 (MOUNT OUSLEY RD) (PRI STH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
309	27-Dec-19	REG: Breakdown: Car	Breakdown	Car	M1 S BND PICTON RD JUST PAST OFF RAMP MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
208	28-Dec-19	REG BD TRUCK NB L1.	Breakdown	Breakdown	MOUNT OUSLEY RD BOTTOM OF MT OUSLEY - LANE 1 MOUNT OUSLEY 2519 WOLLONGONG (LGA)	BOTH DIRECTIONS	ALL LANES
202	29-Dec-19	BD - TRUCK - NB - CAM 1154?	Breakdown	Truck	MOUNT OUSLEY RD LANE 1 OF 3 - 300M NTH OF THE BOTTOM MOUNT OUSLEY 2519 WOLLONGON	NORTH	ALL LANES
208	29-Dec-19	BD - TRUCK - NB	Breakdown	Truck	MOUNT OUSLEY RD 400 M NTH OF THE UNIVERSITY KEIRAVILLE 2500 WOLLONGONG (L	BOTH DIRECTIONS	ALL LANES
393	06-Jan-20	REG CRASH SINGLE CAR	Crash	Crash	MOUNT OUSLEY RD AFTER BULLI PASS PRINCES MTWY KEIRAVILLE 2500 WOLLONGONG (LGA) N	BOTH DIRECTIONS	ALL LANES
95	12-Jan-20	REG - Hazard: Animals	Hazard	Animals	M1 (MOUNT OUSLEY RD) (PRI MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
323	13-Jan-20	REG - Breakdown: Breakdown	Breakdown	Breakdown	PRINCES (MOUNT OUSLEY RD) MTWY PICTON RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
328	14-Jan-20	* Reg * Hazard: Debris Surfbord	Hazard	Debris	MOUNT OUSLEY RD NR THE NEW MOUNT PLEASANT OVER PASS. PRINCES MTWY KEIRAVILLE 250	NORTH	ALL LANES
455	14-Jan-20	B/D CAR Mt Ouslay	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI N BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
50	15-Jan-20	B/D B-DOUBLE	Breakdown	Truck	MOUNT OUSLEY RD NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
585	17-Jan-20	REG CRASH PRINCES MTWY CATARACT	Crash	Car	PRINCES (MOUNT OUSLEY RD) MTWY MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ONE LANE
614	17-Jan-20	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD NTHBND NEW MOUNT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LGA)	BOTH DIRECTIONS	ALL LANES
399	20-Jan-20	REG: B/D TRUCK #355555	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
39	23-Jan-20	BD - CAR - NB	Breakdown	Car	MOUNT OUSLEY RD NTHBOUND LANE 1 NR FOG LINE MOUNT OUSLEY 2519 WOLLONGONG (LGA) N	BOTH DIRECTIONS	ALL LANES
486	23-Jan-20	REG: B/DOWN- MINI BUS #355736 #355754	Breakdown	Bus	MOUNT OUSLEY RD MOUNT PLESENT OVERPASS MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
683	23-Jan-20	REG > CAR BD MT OUSLEY	Breakdown	Breakdown	MOUNT OUSLEY RD GAYNOR AVE MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
310	24-Jan-20	MVA MT OUSLEY SB	Crash	Crash	MOUNT OUSLEY RD PRINCES MTWY KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
109	25-Jan-20	REG - XOVER TYRE DEBRIS	Hazard	Debris	M1 (MOUNT OUSLEY RD) (PRI CROSS OVER OPP ARRESTER BAY ON MOUNT OUSLEY 2519 WOLL	BOTH DIRECTIONS	ALL LANES
514	28-Jan-20	B/D CAR	Breakdown	Car	MOUNT OUSLEY RD NTH BND HALWAY UP MT OUSLEY MOUNT OUSLEY 2519 WOLLONGONG	BOTH DIRECTIONS	ALL LANES
388	29-Jan-20	REG - TRUCK BREAKDOWN	Breakdown	Truck	PRINCES (MOUNT OUSLEY RD) MTWY NBND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
416	31-Jan-20	REG: BREAKDOWN - TRUCK	Breakdown	Truck	MOUNT OUSLEY RD N BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
324	01-Feb-20	REG: BREAKDOWN FUEL TANKER	Breakdown	Truck	MOUNT OUSLEY (PRINCES MTW RD PICTON RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
371	04-Feb-20	REG B/Down Mt Ousley Rd	Breakdown	Breakdown	MOUNT OUSLEY RD LANE 1 S BND TOP OF MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ONE LANE
446	04-Feb-20	REG: B/DOWN - CAR	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
836	07-Feb-20	REG :BREKADOWN	Breakdown	Breakdown	PRINCES MTWY NTH BND MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
2018	09-Feb-20	Hazard: Misc Hazrd	Hazard	Misc Hazrd	MOUNT OUSLEY RD N BOUND BULLI PASS MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
110	12-Feb-20	REG	Breakdown	Breakdown	MOUNT OUSLEY RD 300 MTRS STH OF MT PLEASANT OVER BRIDGE MOUNT OUSLEY 2519 WOLLON	SOUTH	ALL LANES
134	13-Feb-20	REG - TRUCK CRASH	Crash	Truck	MOUNT OUSLEY RD STH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
623	13-Feb-20	REG DOGS ON RD	Hazard	Animals	MOUNT OUSLEY RD HALF WAY UP NTH BD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
522	17-Feb-20	REG - BREAKDOWN	Breakdown	Breakdown	MOUNT OUSLEY RD NTH BND KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
927	20-Feb-20	REG Breakdown: Truck NB >>	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
54	22-Feb-20	REG BREAKDOWN CAR	Breakdown	Truck	PRINCES (MOUNT OUSLEY RD) MTWY N BND 1/2 WAY UP ON MOUNT OUSLEY MOUNT OUSLEY 251	NORTH	ALL LANES
57	23-Feb-20	BD CAR/BOAT TRAILER	Breakdown	Breakdown	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
96	23-Feb-20	REG CAR BREAKDOWN	Breakdown	Car	MOUNT OUSLEY RD N BOUND NEW MOUNT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LGA)	NORTH	ALL LANES
232	25-Feb-20	REG Breakdown: Truck	Breakdown	Truck	M1 (MOUNT OUSLEY RD) (PRI NEW MT PLEASANT OVERPASS MOUNT OUSLEY 2519 WOLLONGONG	BOTH DIRECTIONS	ALL LANES
457	26-Feb-20	REG B/D CAR	Breakdown	Car	M1 MTWY/MOUNT OUSLEY	NORTH	ALL LANES
75	27-Feb-20	4 CAR CRASH	Crash	Car	MOUNT OUSLEY RD NE BND NR NEW MOUNT PLEASANT RD OVERPASS NEW MT PLEASANT RD MOUN	NORTH	ALL LANES
132	28-Feb-20	REG DEER CARCASS	Hazard	Animals	M1 MTWY/MOUNT OUSLEY	NORTH	ALL LANES
189	28-Feb-20	B/D CAR IN SAFTEY RAMP	Breakdown	Car	MT OUSLEY RD/MOUNT OUSLEY	SOUTH	BREAKDOWN
228	29-Feb-20	REG / CAR BREAKDOWN	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
503	02-Mar-20	REG / HAZARD / ROCK FALL	Hazard	Misc Hazrd	M1 (MOUNT OUSLEY RD) (PRI 300-400 FROM THE TOP LANES 1 AND 2 EFFEC MOUNT OUSLEY	NORTH	ALL LANES
243	09-Mar-20	REG - BD - CAR - NB	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
416	11-Mar-20	REG BD - TRUCK - NB - TOW 357863	Breakdown	Truck	MOUNT OUSLEY RD N BND LANE 1 OR 3 300MTS FROM BOTTOM MOUNT OUSLEY 2519 WOLLONGON	NORTH	ALL LANES
72	12-Mar-20	REG HAZ - ANIMALS	Hazard	Animals	M1 (MOUNT OUSLEY RD) (PRI NBND 500M N OF MT PLEASANT OVERPASS MOUNT OUSLEY 2519	NORTH	ALL LANES
468	12-Mar-20	REG > TRUCK BD MT OUSLEY	Breakdown	Truck	PRINCES MTWY/MOUNT OUSLEY	SOUTH	ALL LANES
331	14-Mar-20	REG - MVC MCYC C*1322	Crash	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
486	18-Mar-20	B/D CAR	Breakdown	Car	MOUNT OUSLEY RD LANE 1 OF 3 NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
292	20-Mar-20	REG BD CAR	Breakdown	Car	MOUNT OUSLEY RD NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
200	22-Mar-20	REG BD CAR	Breakdown	Breakdown	M1 MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
67	24-Mar-20	REG - B/DOWN TRUCK	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
447	25-Mar-20	REG - B/DOWN TRUCK	Breakdown	Truck	PRINCES (MOUNT OUSLEY RD) MTWY TOP OF MT OUSLEY N BND MOUNT OUSLEY 2519 WOLLONGO	BOTH DIRECTIONS	ALL LANES
157	28-Mar-20	REG B/D TRUCK	Breakdown	Truck	M1 (MOUNT OUSLEY RD) (PRI 200 MS SHY OF REST BAY N BOUND MOUNT OUSLEY 2519 WOLLO	NORTH	ONE LANE
460	31-Mar-20	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD AT THE BOTTOM OF THE HILL N BND DIR MOUNT OUSLEY 2519 WOLLONGONG	BOTH DIRECTIONS	ALL LANES
182	05-Apr-20	Breakdown: Car	Breakdown	Car	PRINCES (MOUNT OUSLEY RD) MTWY ENTRANCE AT EMERGENCY STOPPING BAY AT BO MOUNT OU	BOTH DIRECTIONS	ALL LANES
494	08-Apr-20	REG LOOSE HORSE	Hazard	Animals	MOUNT OUSLEY RD TOP OF MOUNT OUSLEY MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
200	16-Apr-20	CAR B/D	Breakdown	Car	MOUNT OUSLEY RD 100M NTH MT PLEASANT RD OVERPASS MOUNT OUSLEY 2519 WOLLONGONG (L	NORTH	ALL LANES
372	17-Apr-20	REG : TRUCK BD MT OUSLEY	Breakdown	Breakdown	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
435	21-Apr-20	REG - GRAVEL SPILL	Hazard	Misc Hazrd	M1 (MOUNT OUSLEY RD) (PRI NEAR EXIT NORTH WOLLONGONG PRINCES MTWY ON RAMP KEIRAV	BOTH DIRECTIONS	ALL LANES
51	22-Apr-20	REG - TRUCK BREAKDOWN	Breakdown	Truck	MOUNT OUSLEY RD S BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
217	22-Apr-20	REG: M/CYCLE BREAKDOWN > C*486	Breakdown	Motorcycle	M1 (MOUNT OUSLEY RD) (PRI MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
476	28-Apr-20	Hazard: Pedestrian	Hazard	Pedestrian	MOUNT OUSLEY RD STH BOUND JUST PAST OVERPASS NEW MOUNT PLEASANT MOUNT OUSLEY 251	SOUTH	ALL LANES

Id	Date	Incident Description	Type	Sub-type	Location Description	Direction	Affected Lanes
532	04-May-20	B/D TRUCK	Breakdown	Truck	M1 (MOUNT OUSLEY RD) (PRI MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
390	05-May-20	REG - TRUCK BREAKDOWN	Breakdown	Truck	MOUNT OUSLEY RD NTH BND LANE 1 300M FROM THE TOP MOUNT OUSLEY 2519 WOLLONGONG (L	BOTH DIRECTIONS	ALL LANES
432	05-May-20	REG Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD NTH BND M1 TOP OF MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
165	09-May-20	REG - CAR BD	Breakdown	Car	PRINCES MTWY NTH BND 2.2KM NORTH OF MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (	BOTH DIRECTIONS	ALL LANES
540	11-May-20	Breakdown: Car	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
64	14-May-20	REG - CAR BREAKDOWN	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI NTH BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
15	16-May-20	REG BD CAR	Breakdown	Car	MOUNT OUSLEY RD NEW MOUNT PLEASANT MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
235	16-May-20	Hazard: Misc Hazrd	Hazard	Misc Hazrd	M1 (MOUNT OUSLEY RD) (PRI SAFETY RAMP MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
407	19-May-20	REG / TRUCK BREAKDOWN	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI LN 1 FIRST CLIMB - MOUNT OUSLEY 2519 WOLLONGONG (LGA)	NORTH	ALL LANES
480	20-May-20	REG / LOCATE CAR BREAKDOWN	Breakdown	Car	M1 (MOUNT OUSLEY RD) (PRI MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
594	22-May-20	Breakdown: Truck	Breakdown	Truck	PRINCES MTWY STH BOUND NR THE UNI MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
646	22-May-20	Hazard: Tree Branch	Hazard	Misc Hazrd	PRINCES (MOUNT OUSLEY RD) MTWY MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
115	24-May-20	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
426	28-May-20	REG - FLUID SPILL	Hazard	Fluid Spl	MOUNT OUSLEY RD NORTH BOUND NEW MOUN MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
589	02-Jun-20	REG B/D CAR C 1154 T362336	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
568	04-Jun-20	REG : Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD NTH BND LANE 1 MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
52	08-Jun-20	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD LANE 1 NTH BOUND NEAR NEW MOUNT PLEASANT MOUNT OUSLEY 2519 WOLLO	NORTH	ONE LANE
225	08-Jun-20	REG - BREAKDOWN - CAR	Breakdown	Car	PRINCES (MOUNT OUSLEY RD) MTWY MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
75	09-Jun-20	BD - TRUCK - NB (CCTV 486)	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
448	10-Jun-20	REG - BD - TRUCK - NB #362662	Breakdown	Truck	MOUNT OUSLEY RD N BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
895	17-Jun-20	REG Hazard: UTE IN SAFETY RAMP	Hazard	Misc Hazrd	MOUNT OUSLEY RD S BND SAFETY RAMP APROX HALF WAY DOWN MT NEW MT PLEASANT MOUNT O	BOTH DIRECTIONS	ALL LANES
173	20-Jun-20	REG : BD - CAR - NB - CAM 1154	Breakdown	Car	PRINCES (MOUNT OUSLEY RD) MTWY N BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
456	23-Jun-20	REG - FLUID SPILL	Hazard	Fluid Spl	M1 MTWY/MOUNT OUSLEY	SOUTH	ALL LANES
513	23-Jun-20	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD M1 N BND GAYNOR AVE MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	ANY DIRECTION	ALL LANES
142	25-Jun-20	REG / UTE ROLLOVER / CCTV 1154	Crash	Car	PRINCES MTWY/MOUNT OUSLEY	SOUTH	ALL LANES
347	26-Jun-20	BD TRUCK	Breakdown	Truck	MOUNT OUSLEY RD APPROX 1-1.5KM FROM THE WOLLONGONG UNVIE KEIRAVILLE 2500 WOLLONG	NORTH	ONE LANE
599	26-Jun-20	Crash: Car	Crash	Car	M1 SOUTH BND MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
556	02-Jul-20	REG BD - TRUCK - SB	Breakdown	Truck	M1 MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
87	04-Jul-20	REG: PED	Hazard	Pedestrian	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
270	05-Jul-20	HAZARD DEBRIS	Hazard	Debris	M1 MTWY/MT OUSLEY RD/MOUNT OUSLEY	NORTH	ALL LANES
380	07-Jul-20	REG / CAR BREAKDOWN	Breakdown	Car	MOUNT OUSLEY RD N BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
422	07-Jul-20	REG / CAR BREAKDOWN	Breakdown	Breakdown	MOUNT OUSLEY RD STH BND BREAKDOWN BAY MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
3	13-Jul-20	TRUCK IN SAFETY RAMP	Hazard	Misc Hazrd	MOUNT OUSLEY RD SAFETY RAMP SBND PRINCES MTWY KEIRAVILLE 2500 WOLLONGONG (LGA) N	BOTH DIRECTIONS	ALL LANES
619	17-Jul-20	REG B/D TRUCK	Breakdown	Truck	MOUNT OUSLEY RD NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
168	21-Jul-20	REG CAR B/D	Breakdown	Car	MOUNT OUSLEY RD N BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
210	25-Jul-20	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NTH NEW MOUNT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
214	26-Jul-20	REG > MVA MOUNT OUSLEY	Crash	Crash	MOUNT OUSLEY RD 2 KM NTH OF PICTON RD - IN THE STH BND L MOUNT OUSLEY 2519 WOLLO	SOUTH	ALL LANES
232	26-Jul-20	REG > MVA MOUNT OUSLEY	Crash	Crash	MOUNT OUSLEY RD 2 KM NTH OF PICTON RD - IN THE STH BND L MOUNT OUSLEY 2519 WOLLO	SOUTH	ALL LANES
362	26-Jul-20	Breakdown: Breakdown	Breakdown	Breakdown	PRINCES MTWY 3 MIN NTH OF UNIVERSITY MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG	BOTH DIRECTIONS	ALL LANES
93	28-Jul-20	REG /	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
421	29-Jul-20	TRUCK B/D	Breakdown	Truck	MOUNT OUSLEY RD 800M NTH OF NEW MOUNT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (	NORTH	ALL LANES
73	09-Aug-20	Crash: Car	Crash	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
196	09-Aug-20	REG: BREAKDOWN	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
227	10-Aug-20	REG: TREE DOWN	Hazard	Misc Hazrd	MOUNT OUSLEY RD NTHBND LANE 1 - 300MTS NTH OF RTA BAY MOUNT OUSLEY 2519 WOLLONG	NORTH	ONE LANE
231	10-Aug-20	TREE DOWN	Hazard	Tree Down	MOUNT OUSLEY RD NTHBND LANE 1 - 300MTS NTH OF RTA BAY MOUNT OUSLEY 2519 WOLLONG	NORTH	ALL LANES
572	11-Aug-20	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD NR THE TOP OF THE HILL MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
202	16-Aug-20	REG : MVA C* 1154	Crash	Crash	M1 MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
475	18-Aug-20	REG B/D CAR	Breakdown	Car	M1 STH BND MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
235	22-Aug-20	REG CRASH 3 X CARS	Crash	Crash	PRINCES MTWY 100M NTH MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
201	23-Aug-20	REG - TRUCK B/D	Breakdown	Breakdown	MOUNT OUSLEY RD 300M NTH OF THE MT PLEASNT RD OVERPASS MOUNT PLEASANT MOUNT OUSL	NORTH	ALL LANES
504	24-Aug-20	REG - TRUCK BREAKDOWN	Breakdown	Truck	MOUNT OUSLEY RD LANE 1 NTH BOUND OPP SOUND CAMERA MOUNT OUSLEY 2519 WOLLONGONG (	BOTH DIRECTIONS	ALL LANES
25	25-Aug-20	REG - B/DOWN TRUCK	Breakdown	Truck	M1 PRINCES MTWYMOUNT OUSLEY RD BULLI PASS - 500M STH OF BULLI PASS MOUNT OUSLEY	BOTH DIRECTIONS	ALL LANES
246	30-Aug-20	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD N BND PRINCES MTWY MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
324	04-Sep-20	HAZARD - OIL CONTAINER	Hazard	Misc Hazrd	MT OUSLEY RD/GAYNOR AV/MOUNT OUSLEY	WEST	ALL LANES
422	14-Sep-20	REG - BD - TRUCK - NB - FLUID SPILL	Breakdown	Truck	MOUNT OUSLEY RD NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
160	19-Sep-20	REG - CAR BD	Breakdown	Car	MOUNT OUSLEY RD NEW MOUNT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ONE LANE
773	21-Sep-20	REG - HAZARD DOG - I/H POLICE	Hazard	Animals	M1 JUST N OF INT IN THE S BND DIR MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LG	BOTH DIRECTIONS	ALL LANES
227	29-Sep-20	REG - Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD NEW MT PLEASANT RD2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
225	30-Sep-20	REG Police: Traffic	Breakdown	Car	MOUNT OUSLEY RD 500M NTH OF OLD MT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA)	BOTH DIRECTIONS	ALL LANES
259	10-Oct-20	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NORTH BOUND LANE 1 500 M NTH OF NEW MOUNT PLEASANT MOUNT OUSLEY	BOTH DIRECTIONS	ALL LANES
266	15-Oct-20	REG HAZARD FALLEN TREE	Hazard	Tree Down	PRINCES MTWY/MOUNT OUSLEY	NORTH	ALL LANES
179	16-Oct-20	REG: B/DOWN - TRUCK	Breakdown	Truck	MOUNT OUSLEY RD MOUNT PLEASANT 2500 WOLLONGONG COUNCIL (NSW) NSW	BOTH DIRECTIONS	ALL LANES
198	17-Oct-20	BD - TRUCK -SB - CAM 1154	Breakdown	Truck	MOUNT OUSLEY RD S BND - SAFETY RAMP MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
288	17-Oct-20	BD - CAR / CARAVAN - NB	Breakdown	Car	MOUNT OUSLEY RD N BND - LANE 1 OF 3 NEW MT PLEASANT RD MOUNT OUSLEY 2519 WOLLONG	NORTH	ALL LANES

Id	Date	Incident Description	Type	Sub-type	Location Description	Direction	Affected Lanes
123	21-Oct-20	REG - HAZARD- ANIMALS	Hazard	Animals	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
511	26-Oct-20	REG Breakdown: Car	Breakdown	Car	M1 NBND/ MOUNT OUSLEY RD EXIT KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
38	27-Oct-20	REG TRUCK BREAKDOWN	Breakdown	Breakdown	MOUNT OUSLEY RD NORTH BOUND ABOUT 10M NTH OF MT OUSLEY O MOUNT OUSLEY 2519 WOLLO	NORTH	ONE LANE
105	28-Oct-20	Hazard: Animals	Hazard	Animals	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
19	30-Oct-20	REG / TRUCK BREAKDOWN	Breakdown	Truck	MOUNT OUSLEY RD NTH BND NEW MOUNT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LGA)	NORTH	ALL LANES
57	30-Oct-20	2 DOGS ON ROADSIDE	Hazard	Animals	MOUNT OUSLEY RD VIC REST AREA HALWAY UP MT OUSLEY MOUNT OUSLEY 2519 WOLLONGONG (	BOTH DIRECTIONS	ALL LANES
389	06-Nov-20	REG ABANDONED - 369257	Breakdown	Unattended	M1 MTWY/MT OUSLEY RD/MOUNT OUSLEY	NORTH	BREAKDOWN
535	06-Nov-20	REG CRASH	Crash	Crash	MOUNT OUSLEY RD CNR M1 KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	NO LANES
29	07-Nov-20	REG > CAR BREAKDOWN - 369283	Breakdown	Car	MOUNT OUSLEY RD S BND DIR MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
433	12-Nov-20	POSS CRASH	Crash	Crash	M1 MTWY/MT OUSLEY RD/MOUNT OUSLEY	BOTH DIRECTIONS	ALL LANES
434	12-Nov-20	Crash: Car	Crash	Car	MOUNT OUSLEY RD JUST BEFORE NEW MT PLEASANT UNDERPASS W PRINCES MTWY KEIRAVILLE	BOTH DIRECTIONS	ALL LANES
444	12-Nov-20	2 TRUCK CRASH	Crash	Truck	MOUNT OUSLEY RD STH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
177	13-Nov-20	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NTH BND LANE 1 OF 3 500 MTERES FROM MOUNT OUSLEY 2519 WOLLONGONG	BOTH DIRECTIONS	ALL LANES
545	16-Nov-20	REG BRK DOWN TRUCK NTH BND	Breakdown	Truck	MOUNT OUSLEY RD N BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
610	16-Nov-20	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
163	18-Nov-20	REG TRUCK BREAKDOWN	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
535	19-Nov-20	Breakdown: Breakdown	Breakdown	Breakdown	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
443	27-Nov-20	BD TRUCK SB C*1154	Breakdown	Truck	M1 MTWY/MT OUSLEY RD/MOUNT OUSLEY	SOUTH	ALL LANES
164	28-Nov-20	REG BD?	Breakdown	Truck	MOUNT OUSLEY RD NTH BND LANE 1 - NR NEW MTN PLEASANT RD MOUNT OUSLEY 2519 WOLLON	BOTH DIRECTIONS	ALL LANES
192	28-Nov-20	REG 3 CAR CRASH	Crash	Crash	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
219	28-Nov-20	REG BD BUS	Breakdown	Bus	MOUNT OUSLEY RD LN 1 NTHBND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
587	08-Dec-20	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD N BOUND 1KM FROM REST STOP AT TOP MOUNT OUSLEY 2519 WOLLONGONG	NORTH	ALL LANES
590	08-Dec-20	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD RE N BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
430	15-Dec-20	TRUCK BD MT OUSLEY	Breakdown	Truck	MOUNT OUSLEY RD NBND LANE 1 400 FROM TOP OF MT OUSLEY MOUNT OUSLEY 2519 WOLLONGO	NORTH	ALL LANES
524	16-Dec-20	REG TRUCK BREAKDOWN	Breakdown	Truck	MOUNT OUSLEY RD NTH BND 20-300M FR THE BOTTOM MOUNT OUSLEY 2519 WOLLONGONG (LGA)	BOTH DIRECTIONS	ALL LANES
216	20-Dec-20	Type : Traffic Incident (064)Status : N	Breakdown	Car	MOUNT OUSLEY RD NTH BND NEW MT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NS	NORTH	ONE LANE
300	27-Dec-20	REG - B/D CAR - NB - CAM 486	Breakdown	Car	MOUNT OUSLEY RD N BOUND - LANE 1 MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
127	31-Dec-20	REG BREAKDOWN CAR N/B	Breakdown	Car	M1 NBND IN LH LN MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
39	11-Jan-21	REG: FUEL TANKER MECH ISSUES	Breakdown	Truck	M1 MTWY/MT OUSLEY RD/MOUNT OUSLEY	NORTH	NO LANES
210	16-Jan-21	Crash: Crash	Crash	Crash	MOUNT OUSLEY RD S BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
371	16-Jan-21	REG Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD NTH BD MT PLEASANT UNDER VMS BOARD MOUNT OUSLEY 2519 WOLLONGO	BOTH DIRECTIONS	ALL LANES
96	17-Jan-21	REG - CRASH - SB - C*1154	Crash	Crash	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
202	17-Jan-21	Hazard: Misc Hazrd	Hazard	Misc Hazrd	MOUNT OUSLEY RD MOUNT OUSLEY SAFETY REST STOP MOUNT OUSLEY 2519 WOLLONGONG (LGA)	BOTH DIRECTIONS	ALL LANES
502	19-Jan-21	B/D CAR C*1154	Breakdown	Car	MT OUSLEY RD/M1 MTWY/MOUNT OUSLEY	SOUTH	ALL LANES
401	20-Jan-21	TRUCK BD - TOW 372722	Breakdown	Breakdown	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
409	21-Jan-21	TRUCK BD C* 1154	Breakdown	Truck	M1 MTWY/MT OUSLEY RD/MOUNT OUSLEY	SOUTH	ALL LANES
714	21-Jan-21	REG BRK DOWN CAR STH BND	Breakdown	Car	MOUNT OUSLEY RD S BOUND - NEAR TRUCK CAMERA NEW MOUNT PLEASANT RD MOUNT OUSLEY 2	BOTH DIRECTIONS	ALL LANES
197	22-Jan-21	B/D TRUCK	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
574	22-Jan-21	REG - B/D CAR	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
456	25-Jan-21	REG - SINGLE CAR CRASH	Crash	Car	M1 MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
534	01-Feb-21	REG - B/D - CAR AND TRAILER - SB - *1154	Breakdown	Car	MOUNT OUSLEY RD STH BND BOTTOM MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
223	21-Feb-21	REG - BREAKDOWN CAR	Breakdown	Car	MOUNT OUSLEY RD N BND DIR NEW MT PLESANT RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) N	BOTH DIRECTIONS	ALL LANES
359	26-Feb-21	BVD TRUCK CAM*1154	Breakdown	Truck	M1 NORTHBOUND - 200M FROM THE BOTTOM OF MT MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLO	BOTH DIRECTIONS	ALL LANES
305	03-Mar-21	REG B/DOWN CAR	Breakdown	Breakdown	MOUNT OUSLEY RD TRUCK STOP STH BND - TOP MT OUSLEY MOUNT OUSLEY 2519 WOLLONGONG	SOUTH	ALL LANES
469	03-Mar-21	Breakdown: Car	Breakdown	Car	M1 300 M PAST UNI EXIT >> PICTON MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA	BOTH DIRECTIONS	ALL LANES
435	05-Mar-21	REG - CRASH TRUCK V CAR	Crash	Truck	MOUNT OUSLEY RD S BOUND - NEAR BOTTOM OF HILL - PRINCES MTWY MOUNT OUSLEY 2519 W	BOTH DIRECTIONS	ALL LANES
354	06-Mar-21	ABANDONED VEH TOW 374641	Tow	Abandoned	MOUNT OUSLEY RD MOUNT PLEASANT RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
61	08-Mar-21	CRASH - CAR - NB	Crash	Car	MOUNT OUSLEY RD LANE 3 MOUNT PLEASANT RD OVERPASS MOUNT OUSLEY 2519 WOLLONGONG (	BOTH DIRECTIONS	ALL LANES
499	10-Mar-21	REG / QUERY VAN BREAKDOWN	Breakdown	Car	M1 APPROX 2KM STH OF THE MT OUSLEY HILL NTH MOUNT OUSLEY RD KEIRAVILLE 2500 WOLL	BOTH DIRECTIONS	ALL LANES
588	12-Mar-21	CAR - BD SB	Breakdown	Car	M1 MTWY/ M1 MTWY/MOUNT OUSLEY	SOUTH	ALL LANES
32	16-Mar-21	REG 2 CAR MVA C*1154	Crash	Car	PRINCES MTWY N BND MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
363	23-Mar-21	REG - TRUCK BREAKDOWN	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
391	23-Mar-21	EROSION OF THE BANK	Hazard	Debris	M1 MTWY/MT OUSLEY RD/MOUNT OUSLEY	SOUTH	ALL LANES
795	23-Mar-21	LOW HANGING BRANCH	Hazard	Debris	MT OUSLEY RD/SPEED CAMERA/MOUNT OUSLEY	NORTH	ALL LANES
378	01-Apr-21	B/D TRUCK - S/B SHOUDLER - CCTV 1154	Breakdown	Truck	M1 MTWY/MOUNT OUSLEY	SOUTH	ALL LANES
597	01-Apr-21	REG - MULTI VEH CRASH - S/B SHOUDLER	Crash	Multi-veh	M1 1KM BEFORE UNI >> EBND MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
763	01-Apr-21	REG 4 CAR CRASH (CCTV 1154)	Crash	Car	M1 EAST BOUND MOUNT OUSLEY RD KEIRAVILLE 2500 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
137	02-Apr-21	VEH STOPPED ACROSS SAFETY RAMP	Breakdown	Breakdown	M1 MTWY/ MT OUSLEY RD/MOUNT OUSLEY	SOUTH	ALL LANES
487	08-Apr-21	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD NTH BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
331	09-Apr-21	REG - TRUCK BREAKDOWN > C*1154	Breakdown	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
489	09-Apr-21	Breakdown: Car	Breakdown	Car	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
580	09-Apr-21	REG - 3 CAR CRASH	Crash	Car	MOUNT OUSLEY RD STH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	SOUTH	ALL LANES
29	10-Apr-21	BD - TRUCK - NB	Breakdown	Truck	MOUNT OUSLEY RD NTH BOUND CLIVE BISSELL MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
235	10-Apr-21	REG - BREAKDOWN	Breakdown	Breakdown	MOUNT OUSLEY RD LANE 1 NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES

Id	Date	Incident Description	Type	Sub-type	Location Description	Direction	Affected Lanes
312	10-Apr-21	REG - BREAKDOWN - CCTV 1154	Hazard	Misc Hazrd	MOUNT OUSLEY RD STH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
427	12-Apr-21	CAR BREAKDOWN	Breakdown	Car	M1 JUST AT THE BOTTOM OF MOUNT OUSLEY W BND MOUNT OUSLEY RD EXIT KEIRAVILLE 2500	BOTH DIRECTIONS	ALL LANES
620	12-Apr-21	REG BREAKDOWN TRUCK	Breakdown	Truck	MT OUSLEY RD/PRINCES MTWY/MOUNT OUSLEY	EAST	ALL LANES
923	14-Apr-21	Crash: CAR V TRUCK S/BND C*1154	Crash	Truck	MOUNT OUSLEY RD MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
396	19-Apr-21	REG BRK DOWN M/CYCLE NB C*1154?	Breakdown	Motorcycle	M1 MTWY/MT OUSLEY RD/MOUNT OUSLEY	NORTH	ALL LANES
281	23-Apr-21	REG BD CAR NB	Breakdown	Car	MOUNT OUSLEY RD >>> N BND APPROX 500M MOUNT OUSLEY RD EXIT KEIRAVILLE 2500 WOLLO	BOTH DIRECTIONS	ALL LANES
100	27-Apr-21	Breakdown: Truck	Breakdown	Truck	MOUNT OUSLEY RD NTH BOUND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	BOTH DIRECTIONS	ALL LANES
55	30-Apr-21	BREAKDOWN CAR (CCTV 1154)	Breakdown	Car	MOUNT OUSLEY RD N BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES
167	03-May-21	BREAKDOWN NB	Breakdown	Breakdown	MT OUSLEY RD/MOUNT OUSLEY	BOTH DIRECTIONS	ALL LANES
568	03-May-21	Crash: Crash	Crash	Crash	MOUNT OUSLEY RD NORTH BND NEW MOUNT PLEASANT MOUNT OUSLEY 2519 WOLLONGONG (LGA)	BOTH DIRECTIONS	ALL LANES
604	03-May-21	BREAKDOWN - CAR - SAFETY RAMP	Breakdown	Car	M1 MTWY/ MT OUSLEY RD/MOUNT OUSLEY	SOUTH	ALL LANES
160	06-May-21	TRUCK BD	Breakdown	Truck	MOUNT OUSLEY RD NTH BND MOUNT OUSLEY 2519 WOLLONGONG (LGA) NSW	NORTH	ALL LANES

About Cardno

Cardno is a professional infrastructure and environmental services company, with expertise in the development and improvement of physical and social infrastructure for communities around the world. Cardno's team includes leading professionals who plan, design, manage and deliver sustainable projects and community programs. Cardno is an international company listed on the Australian Securities Exchange [ASX:CDD].

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now

Stantec

Appendix F

Addendum Preliminary Site Investigation (PSI) (Cardno 2022)

Technical Memorandum - 021

[redacted]

Project	80022042	**Location**	St Leonards, NSW
Subject	T021 – Addendum to the Preliminary Site Investigation (Report Ref: 80022042-R001-PSI-Rev B)		
Action Required	TfNSW	**Attachments**	

M1 Princes Motorway and Mount Ousley Road Interchange

1 Introduction

Transport for NSW (TfNSW) is planning to upgrade the interchange on the M1 Princes Motorway with Mount Ousley Road into a grade-separated interchange. Cardno now Stantec was engaged by TfNSW to prepare specialist studies to support the design and construction management of the proposed upgrades. The studies included a Preliminary Site Investigation (PSI, Report Ref: 80022042-R001-PSI-RevB, dated 03/052022) for an earlier revision of the study area, which has since been revised resulting in unassessed areas that present data gaps in the understanding of the site contamination risk.

The purpose of this addendum to the PSI is to document the works that were undertaken to close out this data gap and to provide further assessment. The additional works were undertaken for three areas identified in **Figure 1, Attachment A** and labelled as follows:

- Area 1 - includes Binda Street, Dallas Street, and the roundabout connecting the two streets at their southwestern conjunction.
- Area 2 – section of University Ring Road and western areas of P5 carpark.
- Area 3 – section of University Ring Road and eastern areas of P5 carpark.

The objectives and applicable guidelines and legislation all remain consistent with the original PSI. In this addendum, site history items will only be described in detail where there is a variation from the observations and findings of the original PSI report.

1.1 Scope of work

In order to prepare this addendum, the following scope of works was undertaken:

- Site walkover by a Senior Environmental Scientist of areas 1, 2, and 3 on 16/062022.
- Review of site history documentation collected during the Preliminary Site Investigation, including verification of the currency of NSW Environment Protection Authority (EPA) registers via the NSW EPA website.
- Preparation of this memorandum document.

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2 Site description and surrounding environment

2.1 Site information

A review of site details and definition has been undertaken and found to be generally consistent with previous investigations. Previous site details and changes are outlined in Table 2-1.

Table 2-1 Site information summary

Details	PSI comments				Addendum changes
Site address	M1 Princes Motorway between Highbank Place and University Avenue overpass, Mount Ousley, Kieraville and Gwynneville, NSW				No change
Lot and deposited plan	**Lot**	**DP**	**Whole or part**	**Controlling authority**	No changes, new site areas either within Road Reserve or Lot 100 DP1257652
	2	DP1081811	Whole	NSW Government	
	4	DP843929	Partial	Freehold	
	1	DP507865	Partial	Freehold	
	2	DP657234	Whole	Freehold	
	1	DP1188267	Partial	Freehold	
	1	DP114825	Whole	Freehold	
	222	DP826710	Whole	Freehold	
	-	SP46495	Whole	Freehold	
	100	DP234188	Whole	Freehold	
	5	DP843929	Partial	Freehold	
	1	DP657233	Whole	Freehold	
	B	DP160371	Whole	Freehold	
	A	DP160371	Whole	Freehold	
	1	DP1172481	Whole	Freehold	
Local Government Authority (LGA)	Wollongong City Council				No change
Current land use	Motorway and associated infrastructure, roadside verge, University of Wollongong (UoW), TAFE Wollongong				Residential road reserve
Proposed land use	Unchanged from current land use				No change
Surrounding land use	Low density residential, sporting fields and tertiary education				No change
Current zoning - Wollongong Local Environment Plan (2009)	R2 – Low Density Residential RE1 – Public Recreation SP2 – Infrastructure				No change

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Details	PSI comments	Addendum changes
Site area	391,963 m^2	New total site area: 397,300 m^2 Area 1 = 11,360 m^2 Area 2 = 5,140 m^2 Area 3 = 3,850 m^2
Site coordinates – bounding box (GDA2020 MGA 56)	**North:** 6,191,401.4519 **South:** 6,190,201.8487 **West:** 304,648.3200 **East:** 305,746.2761	**North** - 6,191,401.45 **South** - 6,190,201.84 **West** - 304,388.00 **East** - 305,746.28

2.2 Site description

Site information relating to topography, drainage, nearby waterbodies, soils, geology, groundwater and acid sulfate soil/rock remain generally unchanged from the PSI report.

With the exception of Area 1 which was was noted as generally draining south and east with surface runoff and stormwater inferred as entering the tributary of Cabbage Creek which flows to the east through the northern portion of the study area.

3 Site walkover

A site walkover was conducted on 16/062022 by a Senior Environmental Scientist. Comments regarding items of potential concern/interest are summarized in Table 3-1. No part of the additional areas was inaccessible at the time of the walkover.

Table 3-1 Site walkover summary

Item	Observation
Site surface coverings	Site surface coverings within the three areas were predominately asphalt hardstand with exposed soils and grass on the verges and edges.
Site cut and fill	Area 1 – based on ground conditions, some earthworks appeared to have been undertaken at the time of road construction to establish site levels however specific cut and fill areas were not obvious. Fill in the form of road-base and subgrade materials is likely present across the site. Area 2 – there were observations of possible filling at the northern edge of the area to establish the car park level above the tributary of Cabbage Creek. Fill in the form of road-base and subgrade materials is likely present across the site. Area 2 – the area was observed to be elevated by about >2.5 metres above the hockey field adjacent to the east of P5 carpark. It was unclear at the time of the walkover whether this reflects natural landform, cut to establish respective levels or fill to establish P5 carpark levels.
Buildings and structures	With the exception of the roads, carparks and other utilities structures, no structures were identified within the study areas.
Potential hazardous building materials	No potentially hazardous building materials were identified within the study areas.
Manufacturing, industrial or chemical processes and infrastructure	No manufacturing, industrial or chemical processes and infrastructure were identified within the study areas.

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Item	Observation
Fuel storage tanks (UST/AST)	No fuel storage tanks were identified within the study areas.
Hazardous chemicals	No hazardous chemicals use or storage was identified within the study areas.
Solid waste deposition	While potential historical filling is noted above, no other solid waste deposition was identified within the study area.
Liquid waste disposal features	No liquid waste disposal features were identified within the study areas.
Evidence of previous site contamination investigations	Cardno's assessment locations as part of the recent DSI investigation (report reference 80022042-R003-DSI-RevB) were noted in the P5 carpark area. No other evidence of previous investigations was identified within the study areas.
Evidence of land contamination (staining or odours)	No evidence of land contamination, such as staining or odours, were identified within the study areas.
Evidence of groundwater contamination	No evidence of groundwater contamination, such as monitoring wells, remediation systems or sheens and odour, were identified within the study areas.
Groundwater use	No evidence of groundwater use was identified within the study areas.
Vegetation	Landscaping vegetation was noted in lands and properties adjacent to the study areas with some grass ground cover on the road verges in Area 1.
Site fencing and land enclosure	No portion of the sites were fenced off or enclosed to prevent public access.

4 Site history assessment

A desktop site history review of sources collected as part of the PSI was undertaken. The sources of information included:

- Relevant other reports
- Contamination registers and records
- Historical business directories
- Historic aerial photographs
- Utilities and service plans.

An updated review of publicly accessible registers and records maintained by the NSW EPA was undertaken on 15/06/2022. No new records were identified.

4.1 Relevant other reports

The following reports with information on the contamination status of the site were supplied and reviewed as part of this addendum.

- Roads and Maritime Services (RMS) (2017) M1 Princes Motorway, Mount Ousley Interchange, Review of environmental factors.
- Jacobs (2021) Currency review of contamination information (identified as an appendix to Jacobs (2021)

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Mount Ousley Interchange: Design, Economic Analysis and REF Gap Analysis/Review. Ref IA26700-RP-GN-0001.

- Jacobs (2019) MR6006 Southern Freeway Interchange with MR95, Mount Ousley Road, Geotechnical Factual Report. Ref: IA128701-RP-GI-0014|03.
- Jacobs (2019) MR6006 Southern Freeway Interchange with MR95, Mount Ousley Road, Geotechnical Interpretive Report. Ref: IA128701-RP-GI-0015|02.

No new information of relevance to the contamination status of the site was identified.

4.2 Registers and records

A review of the historical search undertaken during the PSI was completed for the three additional sites. The historical search within the PSI (Lotsearch, Report ID LS028050, Appendix C of the PSI) included a search of properties within 1,000 metres of the site that may present a potential contaminant risk and included a search of the following sources:

- List of NSW contaminated sites notified to NSW EPA
- NSW EPA contaminated land records of notice
- NSW EPA location of former gasworks sites
- NSW EPA per and poly fluoro-alkyl substance (PFAS) investigation program
- NSW EPA other sites with contamination issues
- NSW EPA licensed activities under the PoEO Act
- NSW EPA delicensed PoEO activities still regulated by the EPA
- NSW EPA former PoEO licensed activities now revoked or surrendered
- Defence PFAS investigation and management program
- Airservices Australia national PFAS management program
- Geoscience Australia national waste management facilities database
- Geoscience Australia national liquid fuel facilities.

No additional records within 1,000 metres of the site were identified and no new relevant records were identified during a consistency review undertaken on 17/06/2022.

4.3 Historical business directories

The Lotsearch report LS028050 (Appendix C of the PSI) contains a search of UBD Business to Business directories from 1991, 1982, 1970, 1961 and 1950. A search buffer of 150 metres of the site was used for general business activities whilst a buffer of 500 metres was used for dry cleaners and motor garages/service stations.

No additional records of interest were identified for the additional three sites.

4.4 Historical aerial imagery

Historical aerial imagery from the years 1941, 1948-1951, 1951, 1961, 1970, 1974, 1984, 1994, 1998, 2008, 2016 and 2021 were reviewed in respect of the three additional sites to identify land use activities of concern. Features of interest within each image and area is summarized in Table 4-1
. Images are included in Lotsearch Report ID LS028050, Append ix C of the PSI.

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Table 4-1 Historical aerial imagery summary

Year	Area 1	Area 2	Area 3
1941 (B&W)	Land is cleared with apparent agricultural land-use, this is consistent with adjacent areas.		
1948-1951 (B&W)	Land-use is consistent with adjacent areas.		
1951 (B&W)	Land-use is consistent with adjacent areas.		
1961 (B&W)	It appears that development has commenced in the vicinity of Dallas Street and Binda Street appearing as dirt roads or in early construction.	Land-use is consistent with adjacent areas and previous imagery.	
1970 (B&W)	Dallas and Binda Street have now been constructed and some houses have been constructed, access appears to be off Mount Ousley Road as O'Leary Road has not yet been constructed to the south.	The portion of the Ring Road south of P5 carpark has been constructed along with some additional structures on the south side of this road. A possible cricket field is located adjacent east of the P5 carpark which may have some overlap with Area 3	
1974 (B&W)	Land-use is consistent with adjacent areas and previous imagery		
1984 (Colour)	O'Leary Road has been constructed and access to this area from Mount Ousley Road has been removed.	Some cars are visible parked on grassed areas. Land-use is otherwise consistent with previous imagery.	Cricket nets are visible at the northern end of this area, and a shed-style structure is visible at the south-east corner of this area. Land-use is otherwise consistent with previous imagery.
1994 (Colour)	Land-use is consistent with adjacent areas and previous imagery	Area has now been developed to an asphalt carpark.	Land-use is consistent with previous imagery.
1998 (Colour)	Land-use is consistent with adjacent areas and previous imagery.	Land-use is consistent with previous imagery.	Land clearing or a carpark are present in the southern half of this area, imagery is not clear enough to determine specific use.
2008 (Colour)	Land-use is consistent with adjacent areas and previous imagery.	Land-use is consistent with previous imagery.	The site has now been developed into an asphalt carpark. Land adjacent east has now been developed into a hockey field.
2016 (Colour)	Land-use is consistent with adjacent areas and previous imagery		
2021 (Colour)	Land-use is consistent with adjacent areas and previous imagery		

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4.5 Utilities plans

A review of utilities within the corridor was undertaken by Cardno from plans as provided by service managers (as at 22/062022) through a Dial Before You Dig (DBYD) search. Results are shown in Table 4-2. and supplied plans in **Attachment B.**

Table 4-2 Utilities summary

Utility owner	Area 1	Areas 2 and 3
AARNet Pty Ltd	No services in search area	A fibre optic asset is identified as following the Ring Road south of Area 3.
Endeavour Energy	A pair of buried cables is mapped as entering the area under Dallas Park in the south-east of the area.	A cable run is mapped as following the path of the Ring Road and includes tie-ins to surface substations south of the site. This cabling also connects to that in Dallas Park to the west.
Jemena Gas	63 mm polyethylene pipework is mapped along Binda Street and 110 mm polyethylene pipework is mapped along Dallas Street.	No services in search area.
NBN Co	Refer to Telstra plans.	Refer to Telstra plans.
Sydney Water	100 mm cast iron cement lined and 500 mm ductile iron cement lined active water mains mapped along Binda Street. A disused but still buried water main is mapped along Binda Street continuing to O'Leary Road. Water servicing along Dallas Street is a combination of 125 mm polyethylene and 100 mm cast iron cement lines. Sewer servicing along both streets is via 150 mm vitreous clay services which exit the site under Dallas Park and Ashcroft Place.	No services in search area.
Telstra	20, 35 and 50 mm PVC conduit mapped as running along Binda Street. 20, 35, 50, 75 and 100 mm PVC conduit mapped as running along Dallas Street. 100mm asbestos conduit mapped at intersections where conduit passes under road and continuing along Falder Place to the north-east.	Services are mapped as entering Area 3 in 20 to 35 mm PVC conduit from the north off Falder Place. Likely historical connections to former residents in this area though the current status of conduit in the ground is unknown.

4.6 Per or poly-fluoroalkyl substances (PFAS)

The PFAS probability of occurrence desktop survey conducted as part of the PSI was reviewed and no change in the Likelihood of Occurrence rating was identified for any categories. Likelihood of PFAS impact is considered low for the new site areas.

5 Discussion

Based on the findings of this review, no new sources of contamination have been identified within the new site areas as summarized below in Table 5-1.

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Table 5-1 Contamination source summary

Contamination source	Description	Contaminants of concern	On/off site
Buried utilities	Buried utilities have been identified to contain asbestos pipes and pits which may cause impact to surrounding soils if degraded or damaged. In addition to the identified asbestos conduits associated with the Telstra utilities the disused water main identified by Sydney Water should be considered as a potential asbestos piping. In addition to this, utilities may provide a preferential pathway for migration of fluid contaminants due to loose and reworked, soils and gravels.	Asbestos	On site – Area 1
Acid sulphate soil/rock	Potential for acid leakage in exposed ASS/ASR in exposed or dewatered soils.	Low pH (acidic) leachate, subsequent metal leachate	On site and off site – Area 1
Asphalt pavement	There is potential for remnant asphalt pavement layer to contain coal tar. These materials may exist within or below the current roads.	PAH, phenol, coal tar	On site and off site – Area 1
Fly-tipping, uncontrolled filling, stockpiling, dam construction, creek line filing, road construction and associated activities	Potential for fly-tipping exists for isolated areas of Binda Street and Dallas Street, particularly in Dallas Park. Potential filling is also noted in and around P5 carpark, including in the east (Area 3) adjacent to the hockey field and in the north of Area 2 along the banks of the Cabbage Creek tributary. Due to the undocumented and/or uncontrolled nature of these activities the potential associated contaminant list is broad.	TRH, BTEX, PAH, VOCs, SVOCs, metals, phenol, organochlorine pesticides (OCP), organophosphate pesticides (OPP), PCB, asbestos.	On site and off site – all areas

Based on the above identified sources within the additional areas, the preliminary Conceptual Site Model (CSM) within the PSI remains unchanged and subject to the same data gaps outlined in Section 5.3 of the PSI.

6 Conclusions

Cardno have prepared this PSI addendum as requested by TfNSW for areas added to the Mount Ousley Interchange study area following completion of the PSI. Based on the results of the review conducted as part of this addendum no new contamination sources have been identified within the additional areas however existing sources have been confirmed to exist within these areas. These sources include:

- Buried utilities
- Acid sulphate soil/rock
- Asphalt pavement
- Fly-tipping, uncontrolled filling, stockpiling, creek line filling, road construction and associated activities.

No changes have been made in the preliminary CSM of the site based upon these findings; and the conclusions and recommendations of the PSI remain unchanged. This addendum should be read in conjunction with the PSI.

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7 Limitations

This document has been prepared in general accordance with the current industry standards for the purpose and objectives and scope identified in this document. These standards are set out in:

- NEPC (1999) National Environment Protection (Assessment of Site Contamination) Measure (NEPM). National Environment Protection Council (NEPC) 1999, Amendment 2013 (NEPC 2013)
- NSW EPA (2020) Consultants Reporting on Contaminated Land, Contaminated Land Guidelines. NSW EPA, April 2020, Updated May 2020.

The agreed scope of this addendum to the PSI has been limited for the current purposes of the TfNSW. Subsurface conditions may vary considerably away from the sample locations where information has been obtained.

This document has been provided by Cardno subject to the following limitations:

- This document has been prepared for the particular purpose outlined in Cardno's proposal and no responsibility is accepted for the use of this document, in whole or in part, in other contexts or for any other purpose.
- The scope and the period of Cardno's services are as described in Cardno's proposal, and are subject to restrictions and limitations. Cardno did not perform a complete assessment of all possible conditions or circumstances that may exist at the study area referenced in the document. If a service is not expressly indicated, do not assume it has been provided. If a matter is not addressed, do not assume that any determination has been made by Cardno in regards to it.
- Conditions may exist which were undetectable given the limited nature of the enquiry Cardno was retained to undertake with respect to the study area. Variations in conditions may occur between investigatory locations, and there may be special conditions pertaining to the study area which have not been revealed by the investigation and which have not therefore been taken into account in the document. Accordingly, additional studies and actions may be required.
- In addition, it is recognised that the passage of time affects the information and assessment provided in this document. Cardno's opinions are based upon information that existed at the time of the production of the document. It is understood that the services provided allowed Cardno to form no more than an opinion of the actual conditions of the site at the time this document was prepared and cannot be used to assess the effect of any subsequent changes in the quality of the site, or its surroundings, or any laws or regulations.
- Any assessments made in this document are based on the conditions indicated from published sources and the investigation described. No warranty is included, either express or implied, that the actual conditions will conform exactly to the assessments contained in this document.
- Where data supplied by the client or other external sources, including previous site investigation data, have been used, it has been assumed that the information is correct unless otherwise stated. No responsibility is accepted by Cardno for incomplete or inaccurate data supplied by others.
- Cardno may have retained sub consultants affiliated with Cardno to provide services for the benefit of Cardno. To the maximum extent allowed by law, the client acknowledges and agrees it will not have any direct legal recourse to, and waives any claim, demand, or cause of action against, Cardno's affiliated companies, and their employees, officers and directors.

This document is not any of the following:

- A site audit report or site audit statement as defined under the Contaminated Land Management Act 1997
- A preliminary site investigation, detailed site investigation or environmental site investigation sufficient for an environmental auditor to be able to conclude a site audit report and site audit statement

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- A total assessment of the study area to determine suitability of the entire parcel of land at the study area for one or more beneficial uses of land.

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Attachment A – Figures

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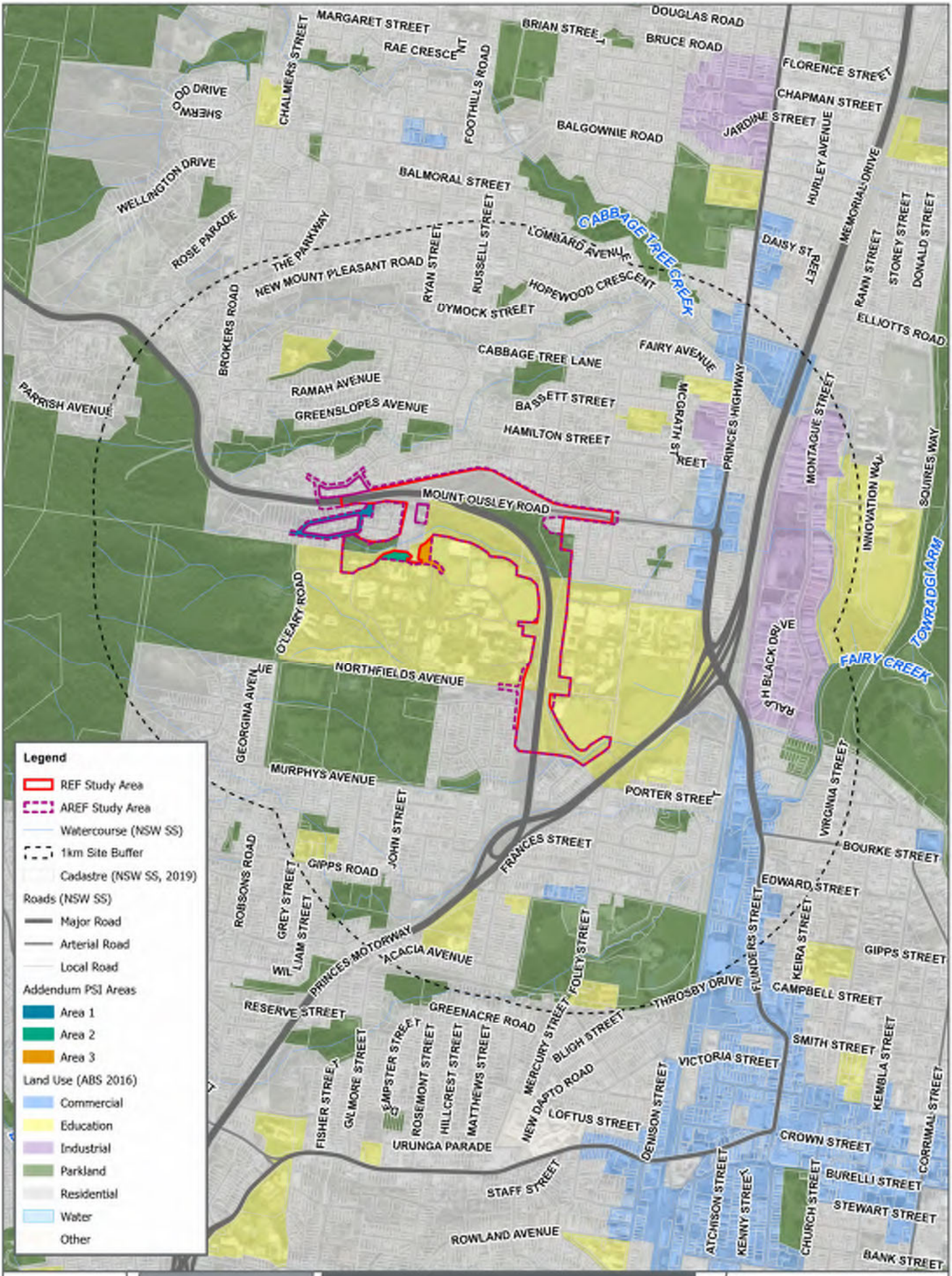
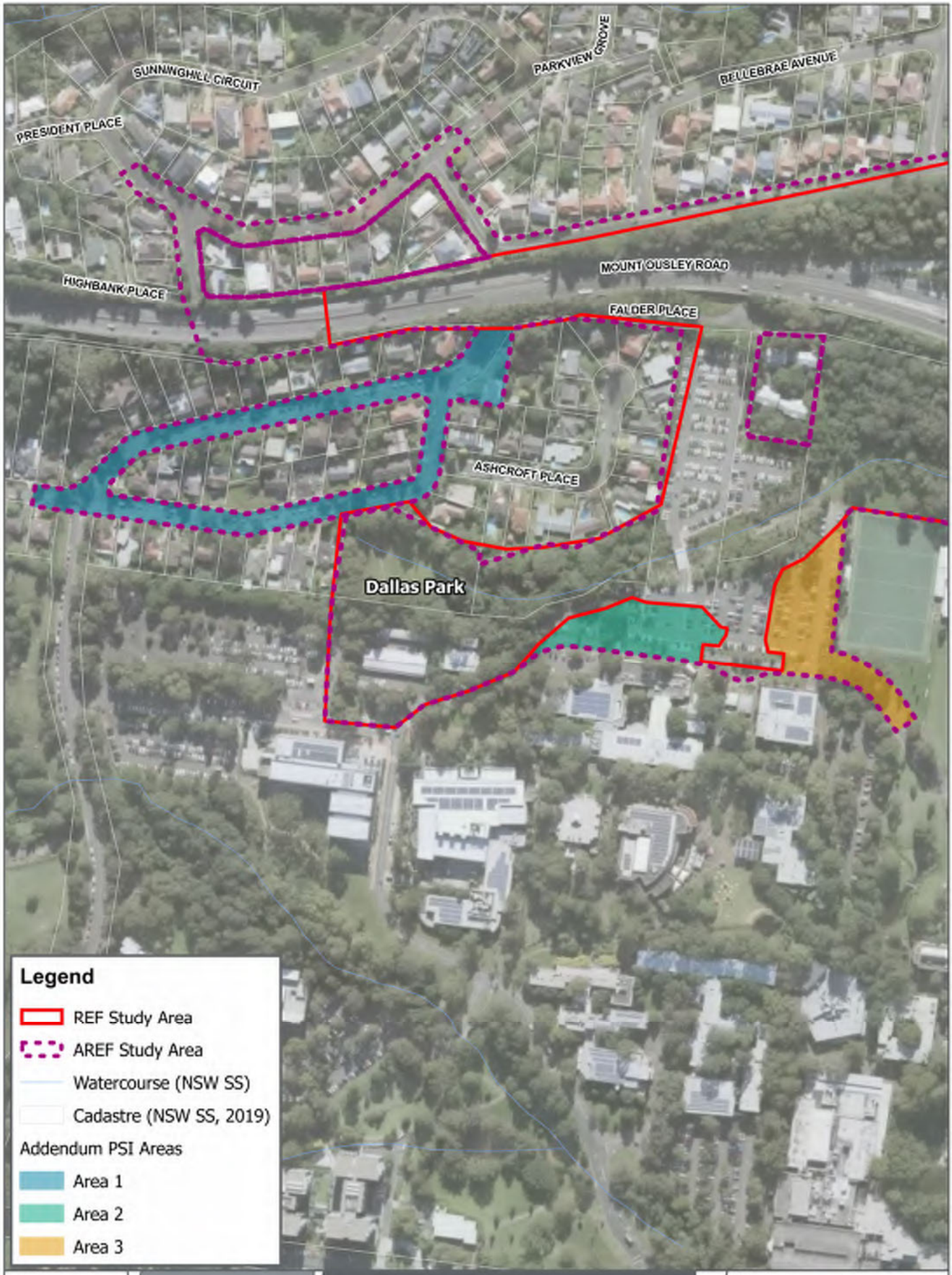

MARGARET STREET
BRIAN STREET
DOUGLAS ROAD
BRUCE ROAD
RAE CRESCENT
CHALMERS STREET
FOOTHILLS ROAD
FLORENCE STREET
CHAPMAN STREET
JARDINE STREET
BALGOWNIE ROAD
HURLEY AVENUE
MEMORIAL DRIVE
WELLINGTON DRIVE
BALMORAL STREET
CABBAGE TREE CREEK
ROSE PARADE
THE PARKWAY
NEW MOUNT PLEASANT ROAD
RYAN STREET
RUSSELL STREET
LOMBARD AVENUE
DAISY ST
REET
RAWN STREET
STOREY STREET
DONALD STREET
HOPEWOOD CRESCENT
DYMOCK STREET
ELLIOTTS ROAD
BROKERS ROAD
CABBAGE TREE LANE
FAIRY AVENUE
PARRISH AVENUE
RAMAH AVENUE
GREENSLOPES AVENUE
BASSETT STREET
HAMILTON STREET
MCGRATH STREET
PRINCES HIGHWAY
MONTAGUE STREET
SQUIRES WAY
INNOVATION WAY
MOUNT OUSLEY ROAD
O'LEARY ROAD
TOWRADGI ARM
FAIRY CREEK
RALPH BLACK DRIVE
NORTHFIELDS AVENUE
GEORGINA AVENUE
MURPHYS AVENUE
PORTER STREET
VIRGINIA STREET
JOHN STREET
FRANCES STREET
BOURKE STREET
ROBSONS ROAD
GREY STREET
GIPPS ROAD
EDWARD STREET
LIAM STREET
PRINCES MOTORWAY
ACACIA AVENUE
FOLEY STREET
FLINDERS STREET
KEIRA STREET
GIPPS STREET
THROSBY DRIVE
CAMPBELL STREET
RESERVE STREET
GREENACRE ROAD
MERCURY STREET
BLIGH STREET
SMITH STREET
VICTORIA STREET
KEMBLA STREET
FISHER STREET
GILMORE STREET
HAMPSTER STREET
ROSEMONT STREET
HILLCREST STREET
MATTHEWS STREET
NEW DAPTO ROAD
LOFTUS STREET
DENISON STREET
CROWN STREET
CORRIMAL STREET
URUNGA PARADE
STAFF STREET
BURELLI STREET
ATCHISON STREET
KENNY STREET
CHURCH STREET
STEWART STREET
ROWLAND AVENUE
BANK STREET
Legend
REF Study Area
AREF Study Area
Watercourse (NSW SS)
1km Site Buffer
Cadastre (NSW SS, 2019)
Roads (NSW SS)
Major Road
Arterial Road
Local Road
Addendum PSI Areas
Area 1
Area 2
Area 3
Land Use (ABS 2016)
Commercial
Education
Industrial
Parkland
Residential
Water
Other
Transport for NSW
GDA 2020
1:20,000 Scale at A4
0 150 300 450 600
Site Location Plan
MOUNT OUSLEY INTERCHANGE
Cardno



Transport for NSW

GDA 2020

1:3,500 Scale at A4

0 25 50 75 100

Additional PSI Site Layout Plan

MOUNT OUSLEY INTERCHANGE PROJECT

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Attachment B – Utilities Plans

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Job No 32187471

Phone: 1100
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Caller Details

Contact:	Chris Cook	**Caller Id:**	3067982	**Phone:**	0415 753 569
Company:	Cardno				
Address:	16 Burelli Street Wollongong NSW 2500	**Email:**	christopher.cook@cardno.com.au		

Dig Site and Enquiry Details

WARNING: The map below only displays the location of the proposed dig site and does not display any asset owners' pipe or cables. The area highlighted has been used only to identify the participating asset owners, who will send information to you directly.

User Reference: 7 Binda Street
Working on Behalf of: Other TfNSW

Enquiry Date:	Start Date:	End Date:
22/06/2022	23/06/2022	24/06/2022

Address:
7 Binda Street
Keiraville NSW 2500

Job Purpose:	Onsite Activities:
Excavation	Vertical Boring
Location of Workplace:	**Location in Road:**
Road Reserve	Road, Nature Strip, Footpath

- Check that the location of the dig site is correct. If not you must submit a new enquiry.
- Should the scope of works change, or plan validity dates expire, you must submit a new enquiry.
- Do NOT dig without plans. Safe excavation is your responsibility. If you do not understand the plans or how to proceed safely, please contact the relevant asset owners.

Notes/Description of Works:
Not supplied

Your Responsibilities and Duty of Care

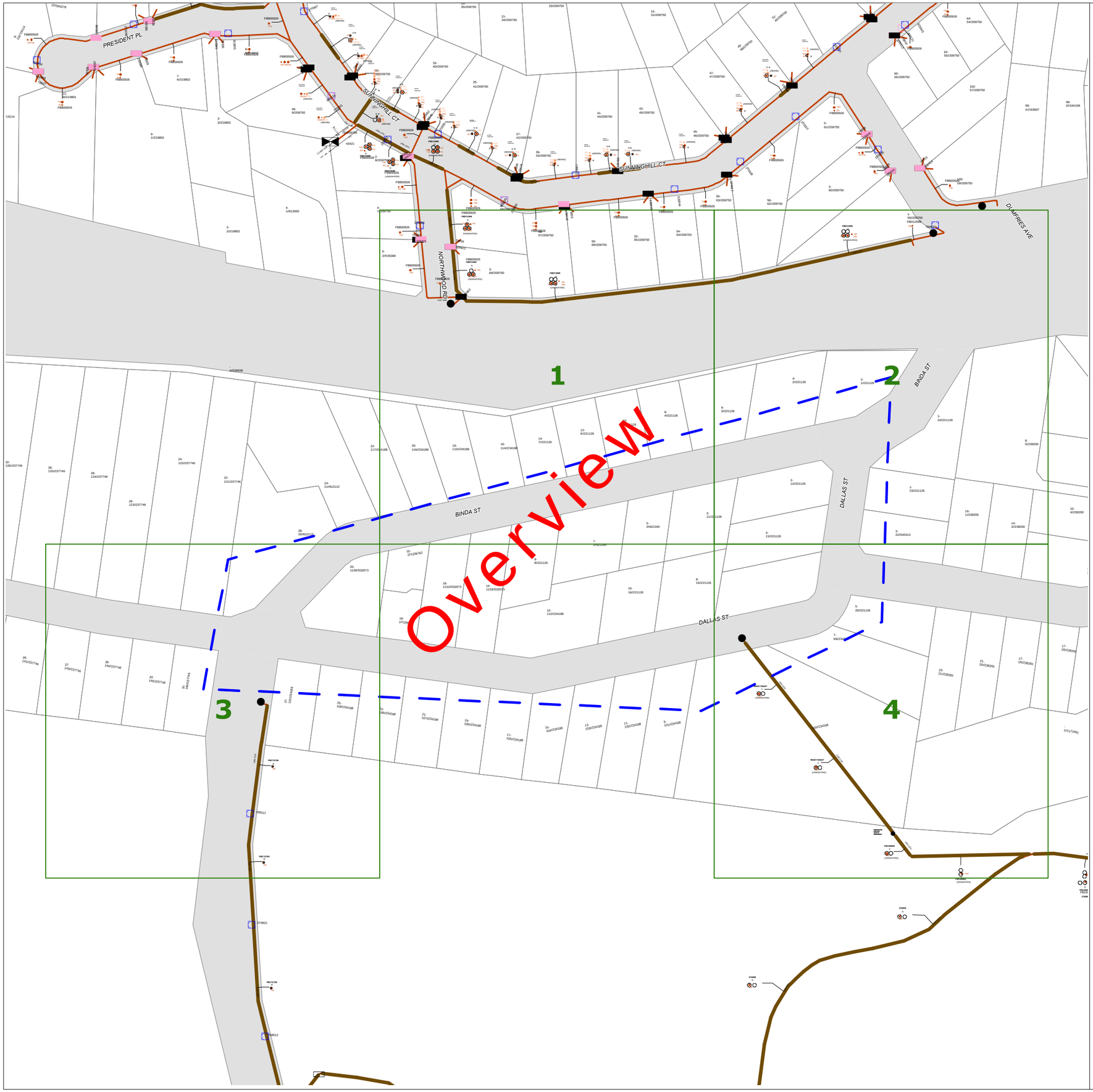
- The lodgement of an enquiry does not authorise the project to commence. You must obtain all necessary information from any and all likely impacted asset owners prior to excavation.
- If plans are not received within 2 working days, contact the asset owners directly & quote their Sequence No.
- ALWAYS perform an onsite inspection for the presence of assets. Should you require an onsite location, contact the asset owners directly. Please remember, plans do not detail the exact location of assets.
- Pothole to establish the exact location of all underground assets using a hand shovel, before using heavy machinery.
- Ensure you adhere to any State legislative requirements regarding Duty of Care and safe digging requirements.
- If you damage an underground asset you MUST advise the asset owner immediately.
- By using this service, you agree to Privacy Policy and the terms and disclaimers set out at **www.1100.com.au**
- **For more information on safe excavation practices, visit www.1100.com.au**

Asset Owner Details

The assets owners listed below have been requested to contact you with information about their asset locations within 2 working days.
Additional time should be allowed for information issued by post. It is **your responsibility** to identify the presence of any underground assets in and around your proposed dig site. Please be aware, that not all asset owners are registered with the Before You Dig service, so it is **your responsibility** to identify and contact any asset owners not listed here directly.
** Asset owners highlighted by asterisks ** require that you visit their offices to collect plans.
# Asset owners highlighted with a hash # require that you call them to discuss your enquiry or to obtain plans.

Seq. No.	Authority Name	Phone	Status
212805099	Endeavour Energy	(02) 9853 4161	NOTIFIED
212805097	Jemena Gas South	1300 880 906	NOTIFIED
212805095	NBN Co NswAct	1800 687 626	NOTIFIED
212805098	Sydney Water	13 20 92	NOTIFIED
212805096	Telstra NSW Central	1800 653 935	NOTIFIED

END OF UTILITIES LIST



Endeavour Energy

WARNING

- **All electrical apparatus shall be regarded as live until proved de-energised.** Contact with live electrical apparatus will cause severe injury or death.
- Underground assets may be congested at the approach to bridges and other structures. Typical asset depths and alignment may vary substantially, rising and falling sharply and at much shallower depths than elsewhere as they are channelled into shared allocated spaces on bridges and other structures. Additional precautions and underground asset location methods will be required in proximity to bridges and other structures.
- In accordance with the *Electricity Supply Act 1995*, you are obliged to report any damage to Endeavour Energy Assets immediately by calling **131 003**.
- The customer must obtain a new set of plans from Endeavour Energy if work has not been started or completed within twenty **(20)** working days of the original plan issue date.
- The customer must contact Endeavour Energy if any of the plans provided have blank pages, as some underground asset information may be incomplete.
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- Endeavour Energy plans **do not** show any underground customer service mains or information relating to service mains within private property.
- Asbestos or asbestos-containing material may be present on or near Endeavour Energy's underground assets.
- Organo-Chloride Pesticides (OCP) may be present in some sub-transmission trenches.
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INFORMATION PROVIDED BY ENDEAVOUR ENERGY

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- Such plans have been prepared solely for use by Endeavour Energy staff for design, construction and maintenance purposes.
- All enquiry details and results are kept in a register.

DISCLAIMER

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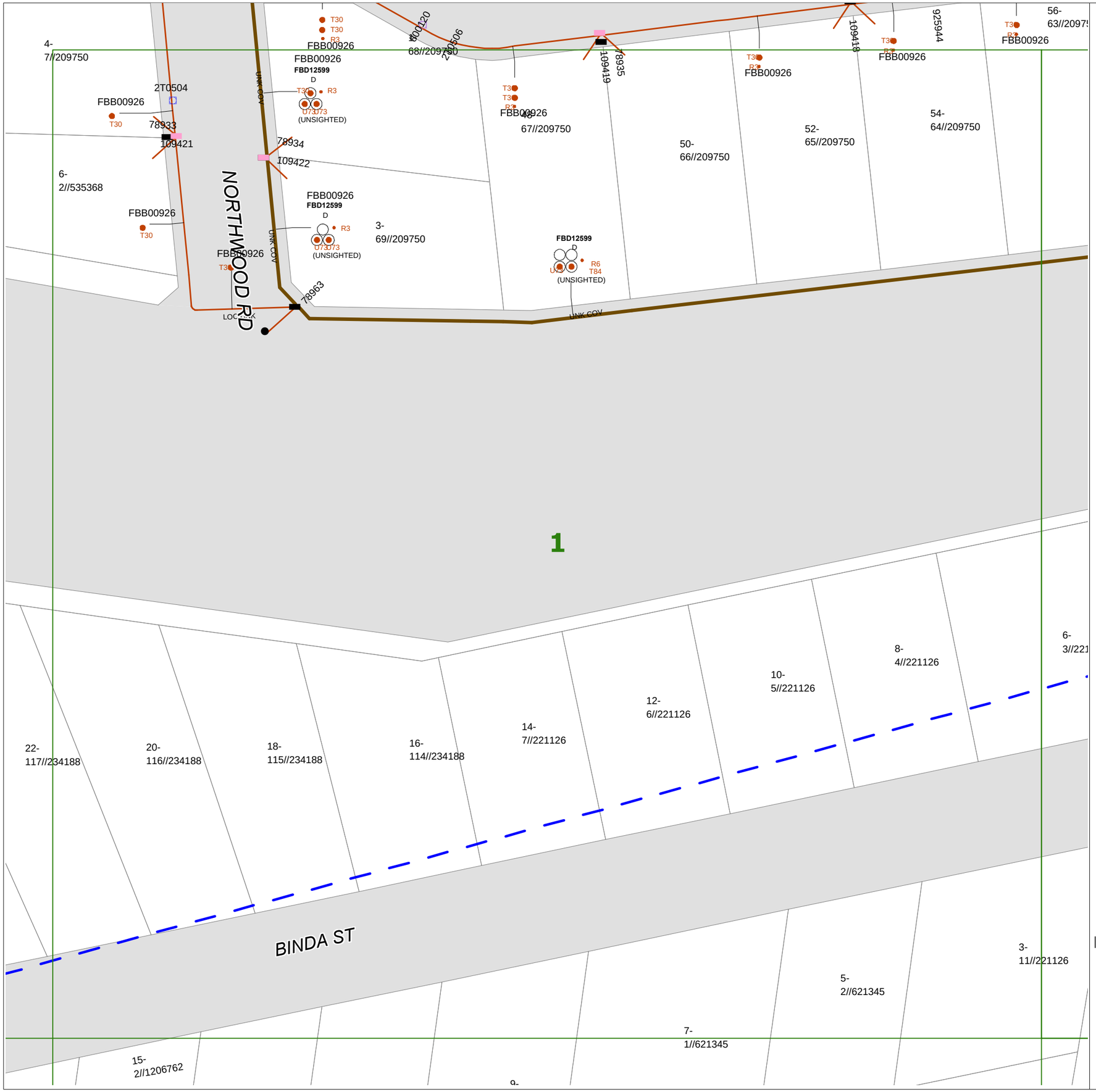
LEGEND

- Street light column (or)
- Padmount substation
- Overground pillar (O.G.Box) (or)
- Underground pit
- Duct run
- Cable run
- Typical duct section
- Asbestos warning

N

NOT TO SCALE

DBYD Sequence No.:	212805099
Issued Date:	22/06/2022



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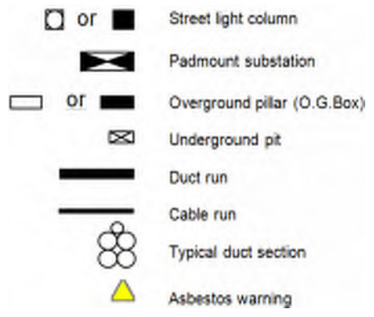

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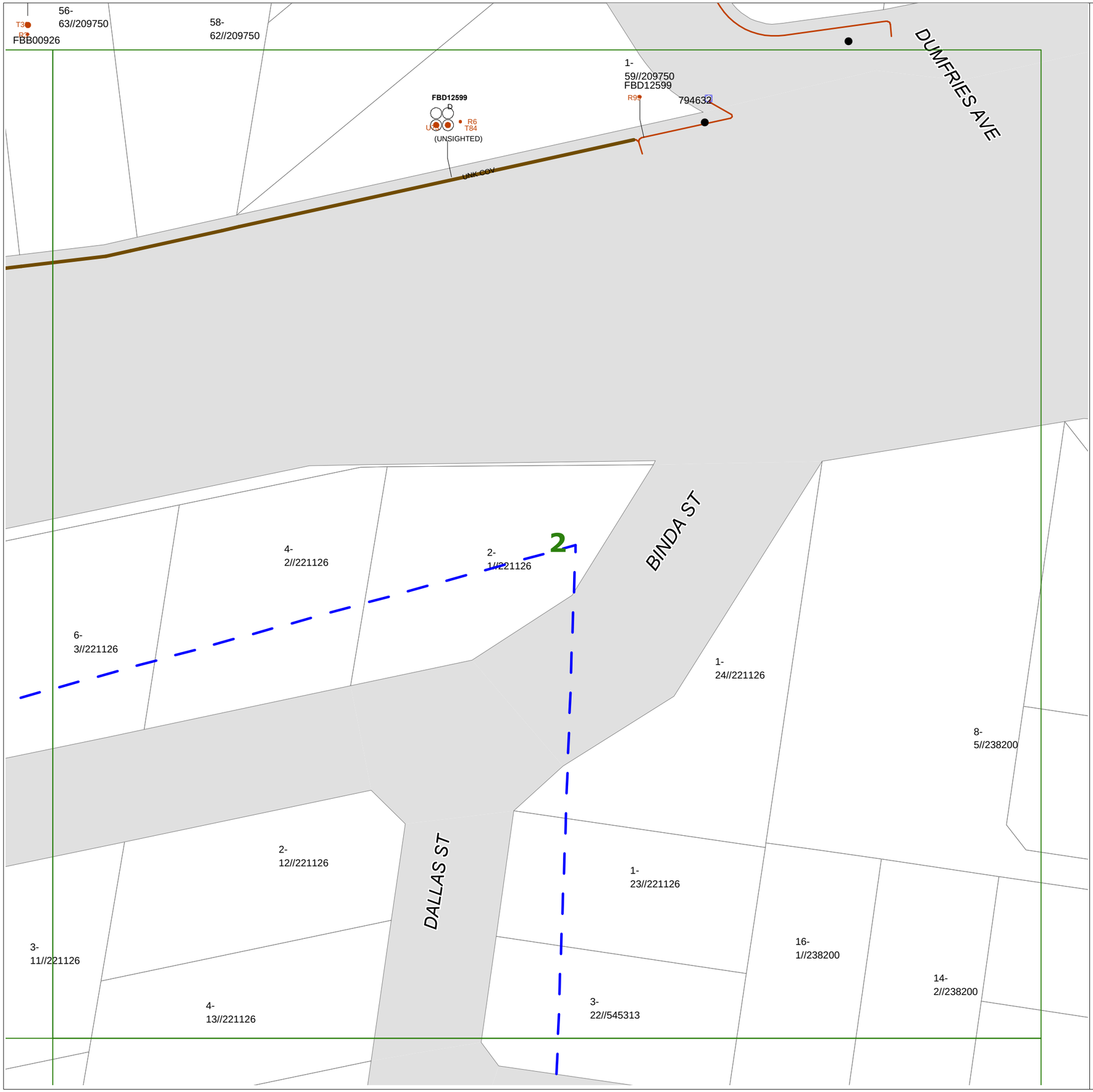

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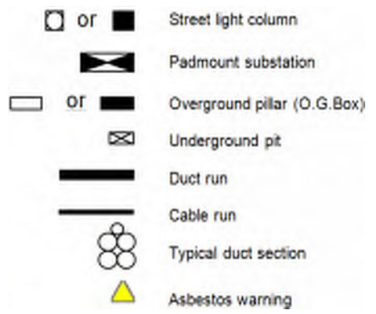

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DBYD Sequence No.:	212805099
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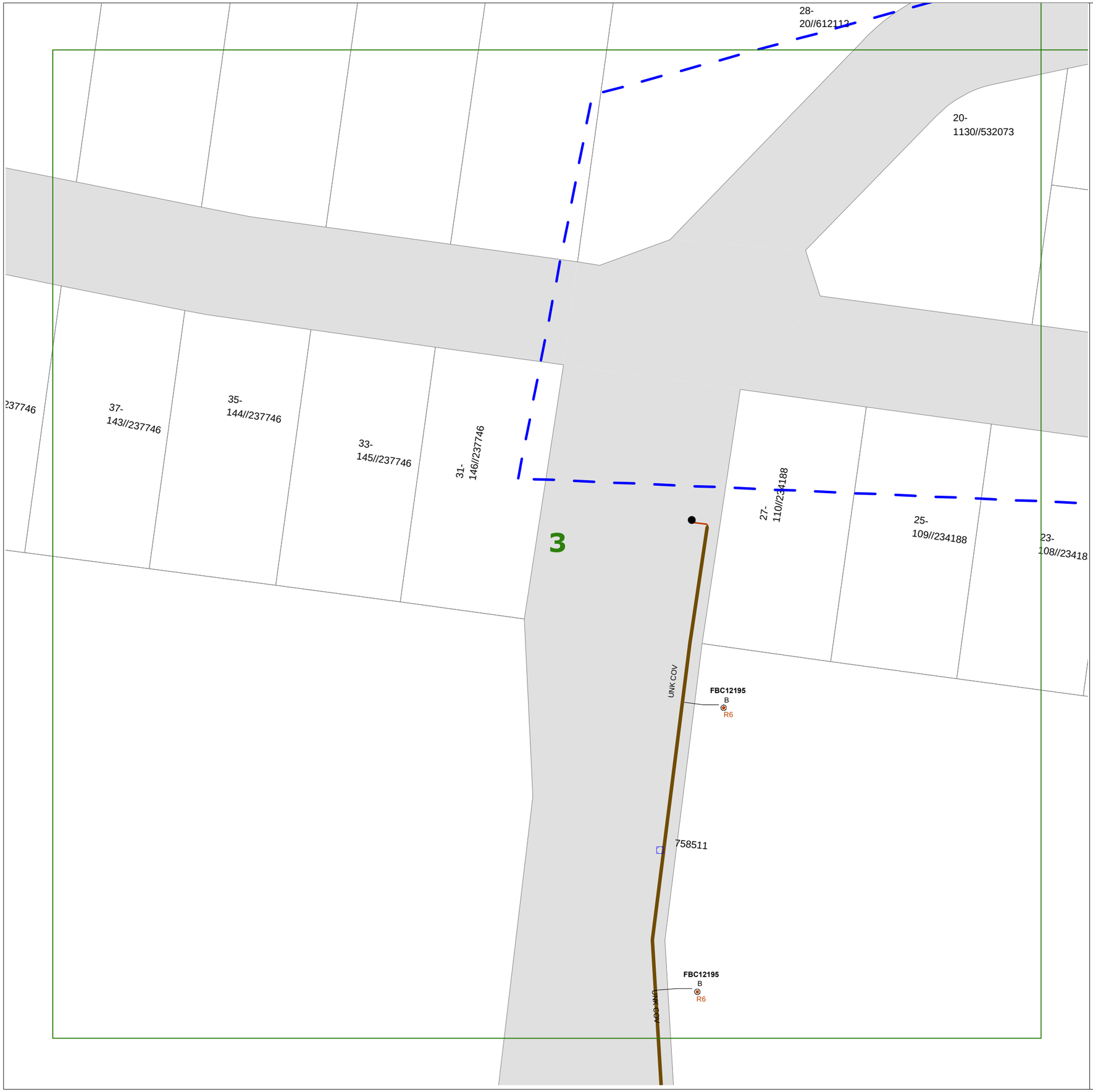

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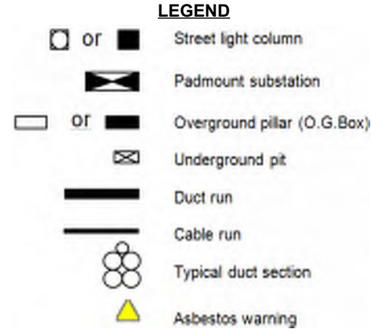

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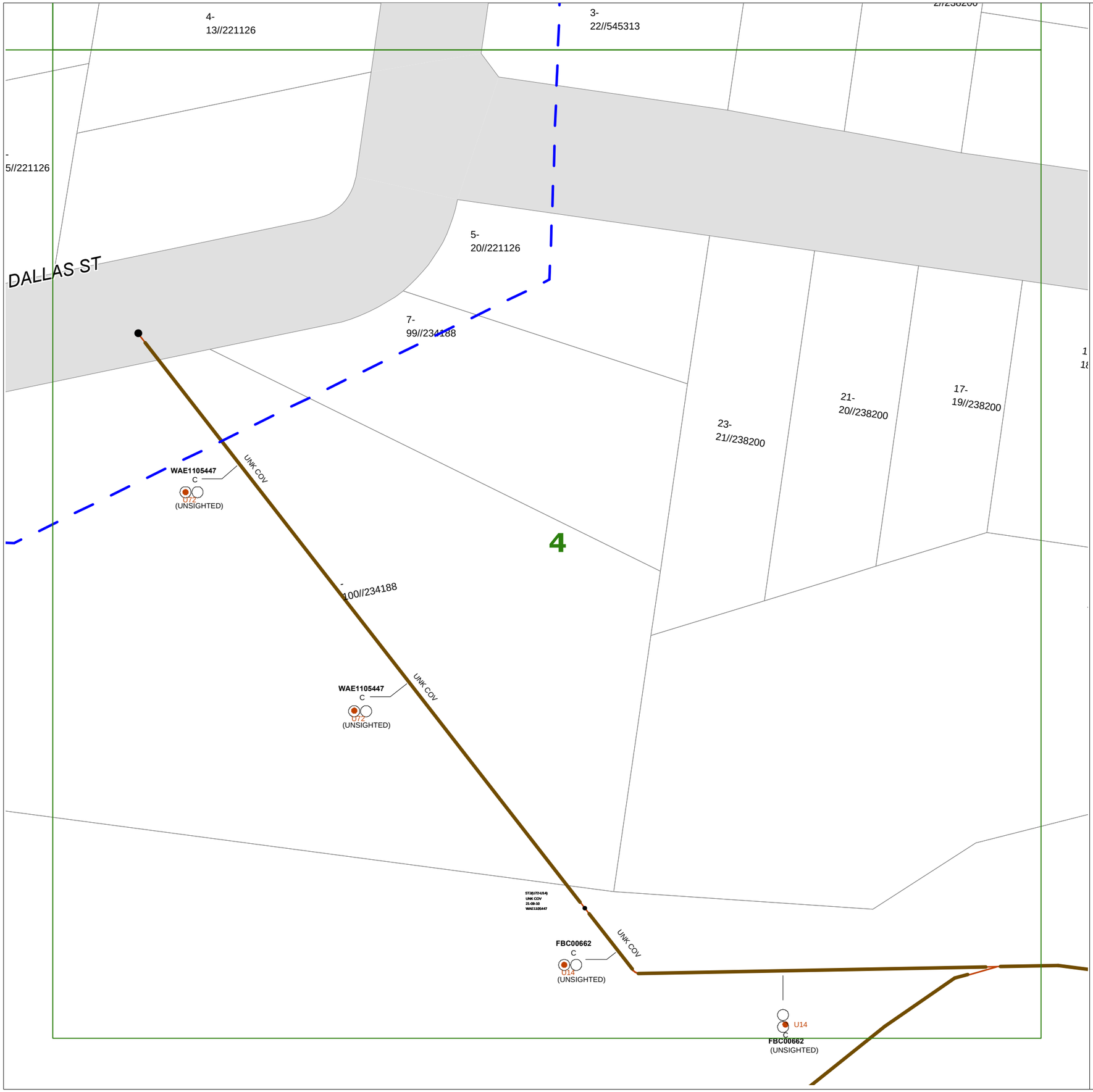

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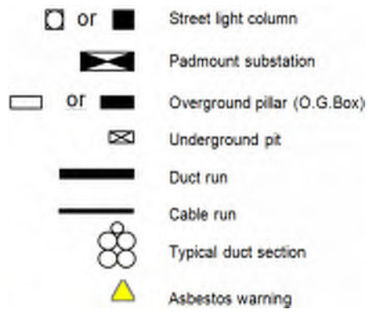


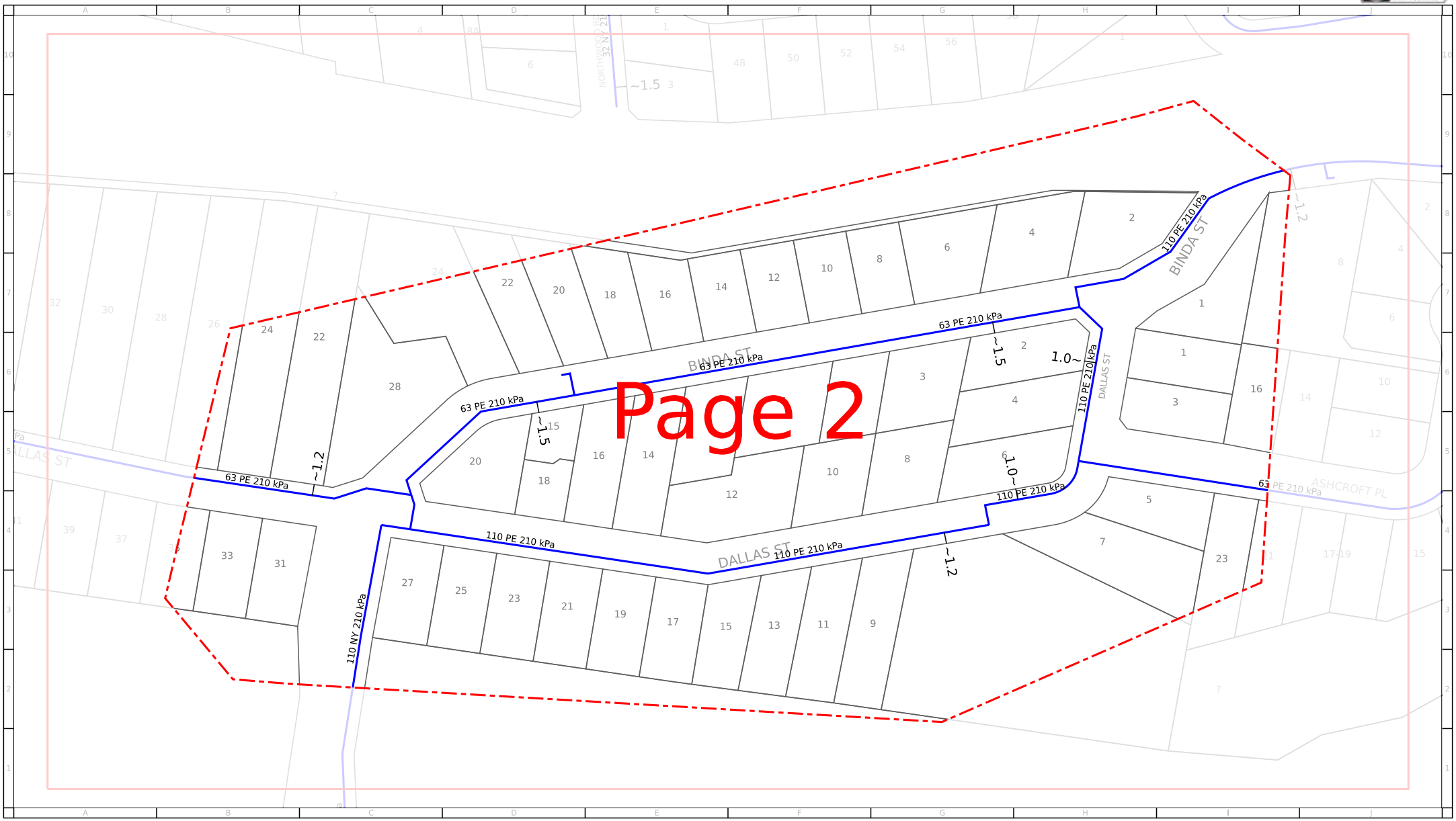
N

NOT TO SCALE

DBYD Sequence No.:	212805099
Issued Date:	22/06/2022

DBYD Authority: Jemena Gas Networks (NSW)

DBYD Location: 7 Binda Street Keiraville NSW, 2500



For legend details, please refer to the Coversheet attachment provided as part of this DBYD response.

Issue Date: 22/06/2022

DBYD Seq No: 212805097

DBYD Job No: 32187471

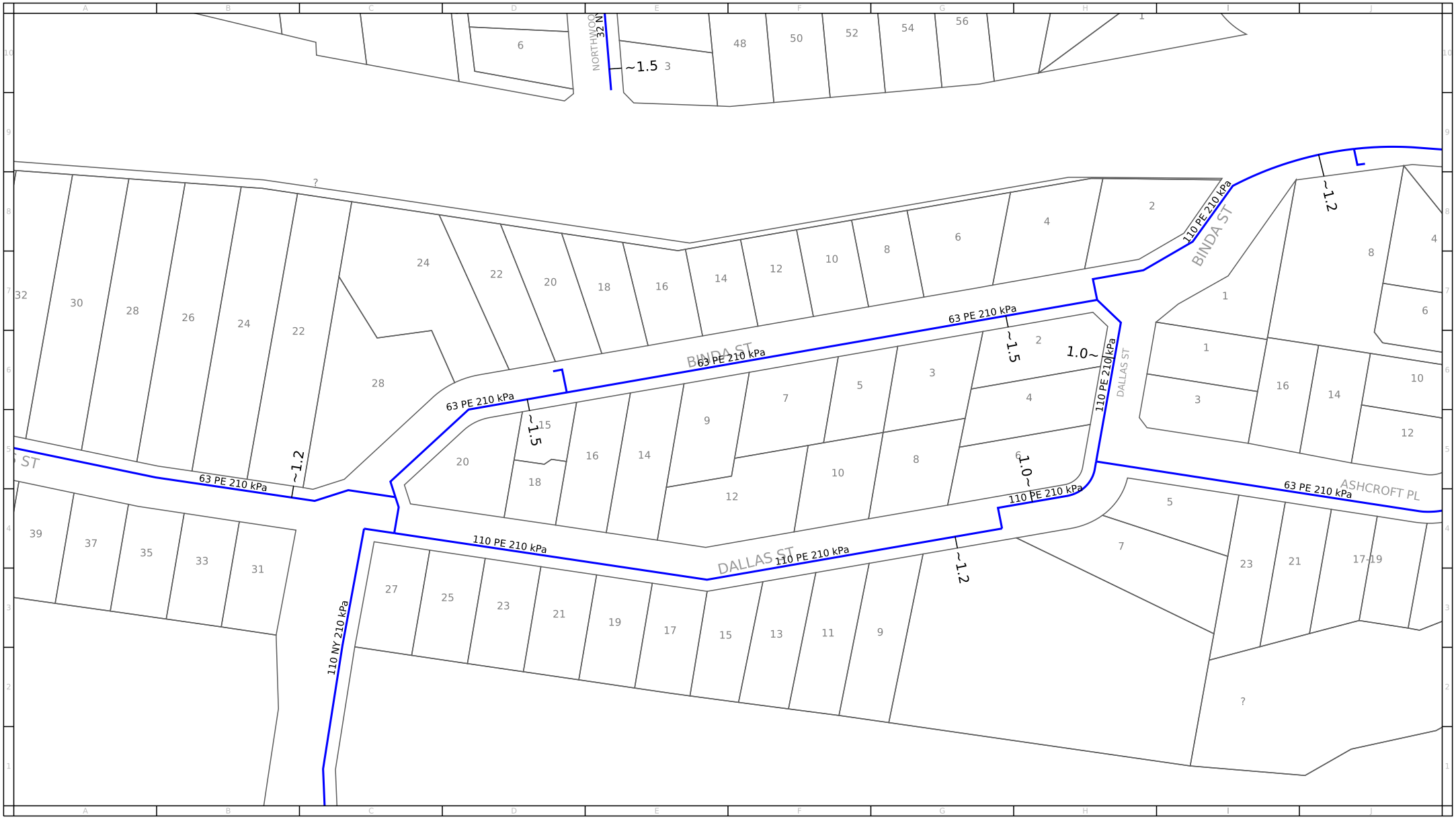
Overview Page:

Scale: 1:2101

WARNING: This is a representation of Jemena Gas Networks underground assets only and may not indicate all assets in the area. It must not be used for the purpose of exact asset location in order to undertake any type of excavation. Please read all conditions and information on the attached information sheet. This extract is subject to those conditions.
The information contained on this plan is only valid for 28 days from the date of issue.

DBYD Authority: Jemena Gas Networks (NSW)

DBYD Location: 7 Binda Street Keiraville NSW, 2500



For legend details, please refer to the Coversheet attachment provided as part of this DBYD response.

Issue Date: 22/06/2022

DBYD Seq No: 212805097

DBYD Job No: 32187471

Scale: 1:2000

0m 10m 20m 30m 40m 50m 60m 70m 80m

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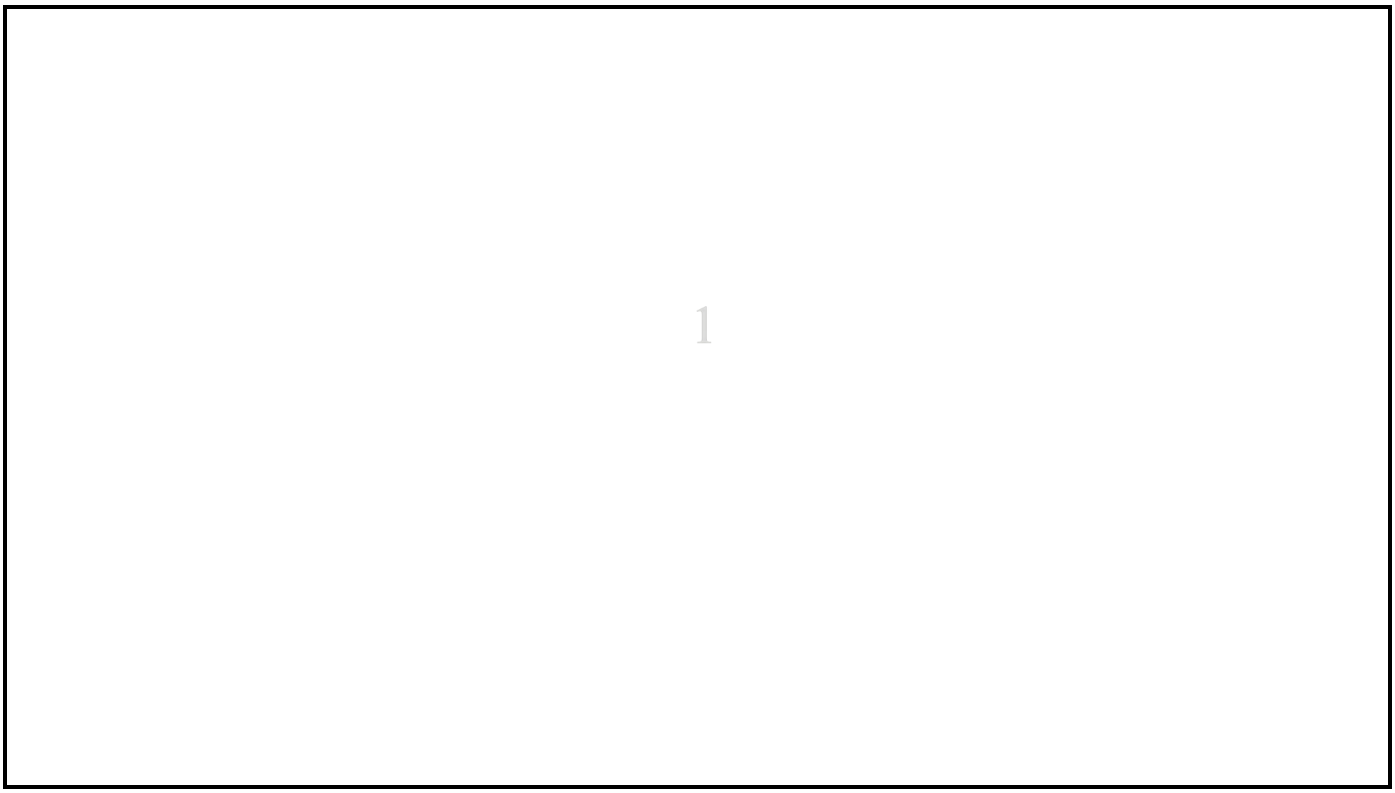
To:	Chris Cook
Phone:	Not Supplied
Fax:	Not Supplied
Email:	christopher.cook@cardno.com.au

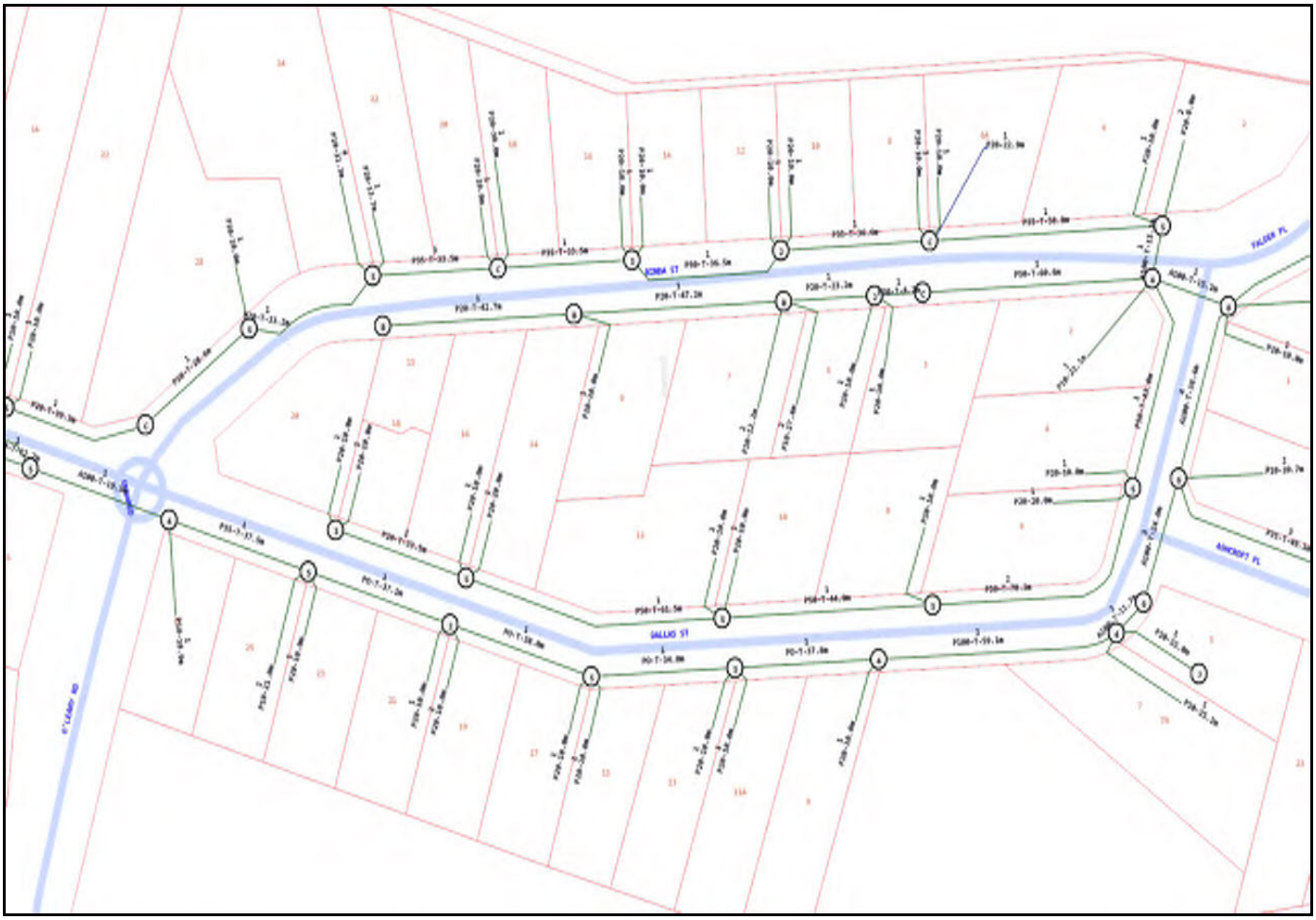
Dial before you dig Job #:	32187471
Sequence #	212805095
Issue Date:	22/06/2022
Location:	7 Binda Street , Keiraville , NSW , 2500

Indicative Plans



LEGEND

34	Parcel and the location
5	Pit with size "5"
2E	Power Pit with size "2E". Valid PIT Size: e.g. 2E, 5E, 6E, 8E, 9E, E, null.
	Manhole
	Pillar
2 PO – T- 25.0m P80 – 20.0m 5 9	Cable count of trench is 2. One "Other size" PVC conduit (PO) owned by Telstra (-T-), between pits of sizes, "5" and "9" are 25.0m apart. One 80mm PVC conduit (P80) owned by NBN, between pits of sizes, "5" and "9" are 20.0m apart.
2 10.0m 5 9	2 Direct buried cables between pits of sizes ,"5" and "9" are 10.0m apart.
5 9	Trench containing any INSERVICE/CONSTRUCTED (Copper/RF/Fibre) cables.
5 9	Trench containing only DESIGNED/PLANNED (Copper/RF/Fibre/Power) cables.
5 9	Trench containing any INSERVICE/CONSTRUCTED (Power) cables.
BROADWAY ST	Road and the street name "Broadway ST"
Scale	0 20 40 60 Meters 1:2000 1 cm equals 20 m



Emergency Contacts

You must immediately report any damage to the **nbn™** network that you are/become aware of. Notification may be by telephone - 1800 626 329.

A3

DUMFRIES AVE

SUNNINGHILL

NORTHWOOD RD

PL

RD

FALDER

ST

BINDA

DALLAS

ST

ASHCROFT

ST

RD

PL

LOT 1

DBYD Address:
7 Binda Street
Keiraville NSW 2500

DBYD Job No: 32187471

DBYD Sequence No: 212805098

Scale: 1:1500

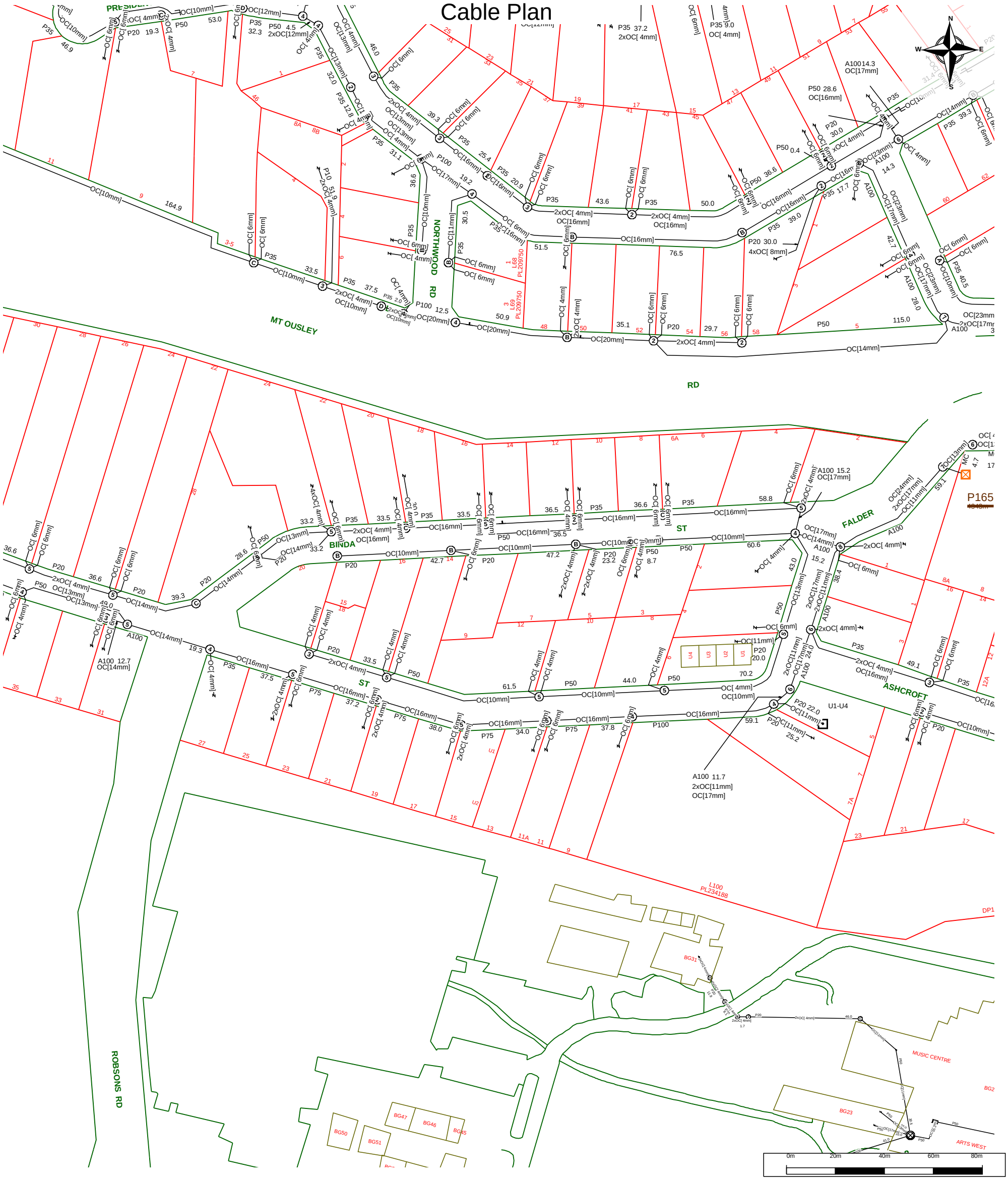
Date of Production: 22/06/2022

Plan 1 of 1

N

0m 9m 18m 27m 36m

Cable Plan



Telstra	For all Telstra DBYD plan enquiries - email - Telstra.Plans@team.telstra.com For urgent onsite contact only - ph 1800 653 935 (bus hrs)
TELSTRA CORPORATION LIMITED A.C.N. 051 775 556	
Generated On 22/06/2022 10:14:27	

Sequence Number: 212805096

Please read Duty of Care prior to any excavating

The above plan must be viewed in conjunction with the Mains Cable Plan on the following page

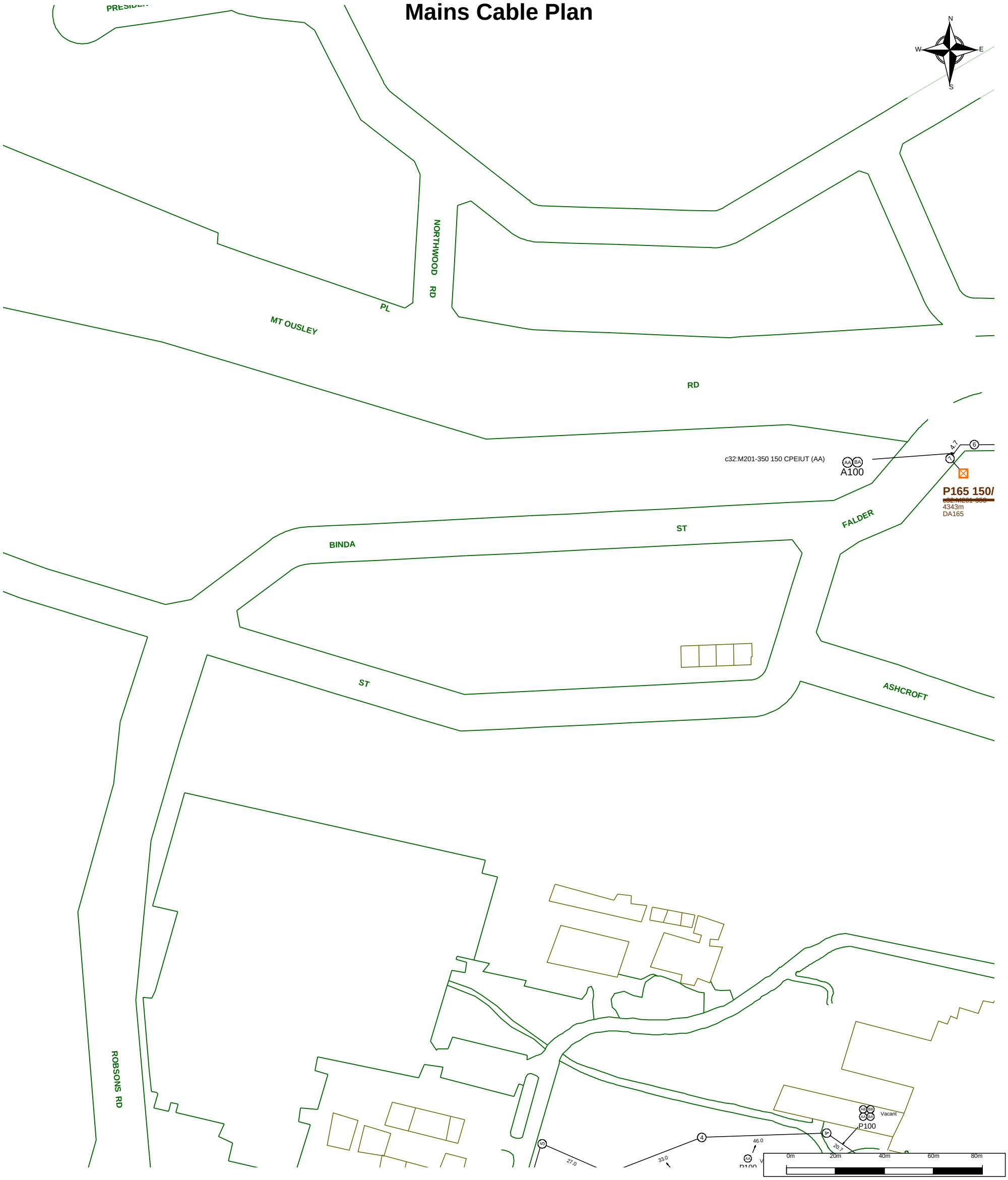
WARNING - Due to the nature of Telstra underground plant and the age of some cables and records, it is impossible to ascertain the precise location of all Telstra plant from Telstra's plans. The accuracy and/or completeness of the information supplied can not be guaranteed as property boundaries, depths and other natural landscape features may change over time, and accordingly the plans are indicative only. Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for any inaccuracy shown on the plans.

It is your responsibility to locate Telstra's underground plant by careful hand pot-holing prior to any excavation in the vicinity and to exercise due care during that excavation.

Please read and understand the information supplied in the duty of care statement attached with the Telstra plans. TELSTRA WILL SEEK COMPENSATION FOR LOSS CAUSED BY DAMAGE TO ITS PLANT.

Telstra plans and information supplied are valid for 60 days from the date of issue. If this timeframe has elapsed, please reapply for plans.

Mains Cable Plan



For all Telstra DBYD plan enquiries - email - Telstra.Plans@team.telstra.com For urgent onsite contact only - ph 1800 653 935 (bus hrs)	Sequence Number: 212805096
TELSTRA CORPORATION LIMITED A.C.N. 051 775 556	Please read Duty of Care prior to any excavating
Generated On 22/06/2022 10:14:28	

WARNING - Due to the nature of Telstra underground plant and the age of some cables and records, it is impossible to ascertain the precise location of all Telstra plant from Telstra's plans. The accuracy and/or completeness of the information supplied can not be guaranteed as property boundaries, depths and other natural landscape features may change over time, and accordingly the plans are indicative only. Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for any inaccuracy shown on the plans.

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Job No 32187483

Phone: 1100
www.1100.com.au

Caller Details

Contact:	Chris Cook	**Caller Id:**	3067982	**Phone:**	0415 753 569
Company:	Cardno				
Address:	16 Burelli Street Wollongong NSW 2500	**Email:**	christopher.cook@cardno.com.au		

Dig Site and Enquiry Details

WARNING: The map below only displays the location of the proposed dig site and does not display any asset owners' pipe or cables. The area highlighted has been used only to identify the participating asset owners, who will send information to you directly.

User Reference: 15 Falder Place

Working on Behalf of: Private

Enquiry Date:	**Start Date:**	**End Date:**
22/06/2022	23/06/2022	24/06/2022

Address:

15 Falder Place
Keiraville NSW 2500

Job Purpose:	**Onsite Activities:**
Excavation	Vertical Boring
Location of Workplace:	**Location in Road:**
Both	Road, Nature Strip

- Check that the location of the dig site is correct. If not you must submit a new enquiry.
- Should the scope of works change, or plan validity dates expire, you must submit a new enquiry.
- Do NOT dig without plans. Safe excavation is your responsibility. If you do not understand the plans or how to proceed safely, please contact the relevant asset owners.

Notes/Description of Works:

Not supplied

Your Responsibilities and Duty of Care

- The lodgement of an enquiry does not authorise the project to commence. You must obtain all necessary information from any and all likely impacted asset owners prior to excavation.
- If plans are not received within 2 working days, contact the asset owners directly & quote their Sequence No.
- ALWAYS perform an onsite inspection for the presence of assets. Should you require an onsite location, contact the asset owners directly. Please remember, plans do not detail the exact location of assets.
- Pothole to establish the exact location of all underground assets using a hand shovel, before using heavy machinery.
- Ensure you adhere to any State legislative requirements regarding Duty of Care and safe digging requirements.
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# Asset owners highlighted with a hash # require that you call them to discuss your enquiry or to obtain plans.

Seq. No.	Authority Name	Phone	Status
212805171	AARNet Pty Ltd Nsw	1300 275 662	NOTIFIED
212805173	Endeavour Energy	(02) 9853 4161	NOTIFIED
212805170	Jemena Gas South	1300 880 906	NOTIFIED
212805168	NBN Co NswAct	1800 687 626	NOTIFIED
212805172	Sydney Water	13 20 92	NOTIFIED
212805169	Telstra NSW Central	1800 653 935	NOTIFIED

END OF UTILITIES LIST

Lodge Your Free Enquiry Online – 24 Hours a Day, Seven Days a Week

aarnet
Australia's Academic and Research Network

Sequence No: 212805171
Job No: 32187483
Location: 15 Falder Place, Keiraville, NSW 2500

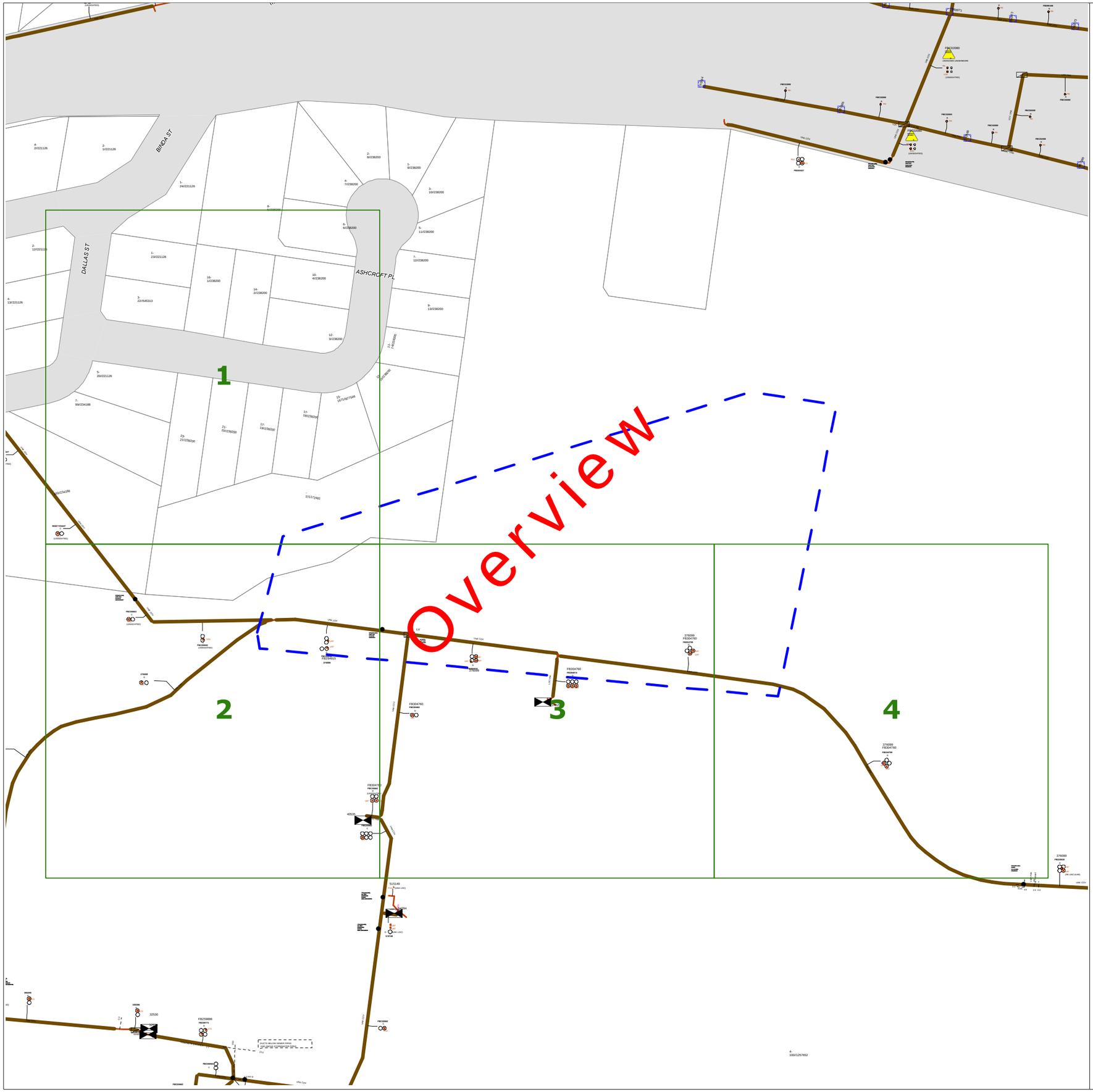
DIAL BEFORE YOU DIG www.1100.com.au
The Essential First Step.

Legend | Scale: 1:1500

N

- Enquiry Area
- AARNet Fibre Optic Assets
- AARNet Power Assets
- Cadastre

DISCLAIMER: While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither AARNet or PelicanCorp shall have any liability whatsoever in relation to any loss, damage, cost or expense arising from the use of this plan response or the information contained in it or the completeness or accuracy of such information. Use of such information is subject to and constitutes acceptance of these terms.



Endeavour Energy

WARNING

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- In accordance with the *Electricity Supply Act 1995*, you are obliged to report any damage to Endeavour Energy Assets immediately by calling **131 003**.
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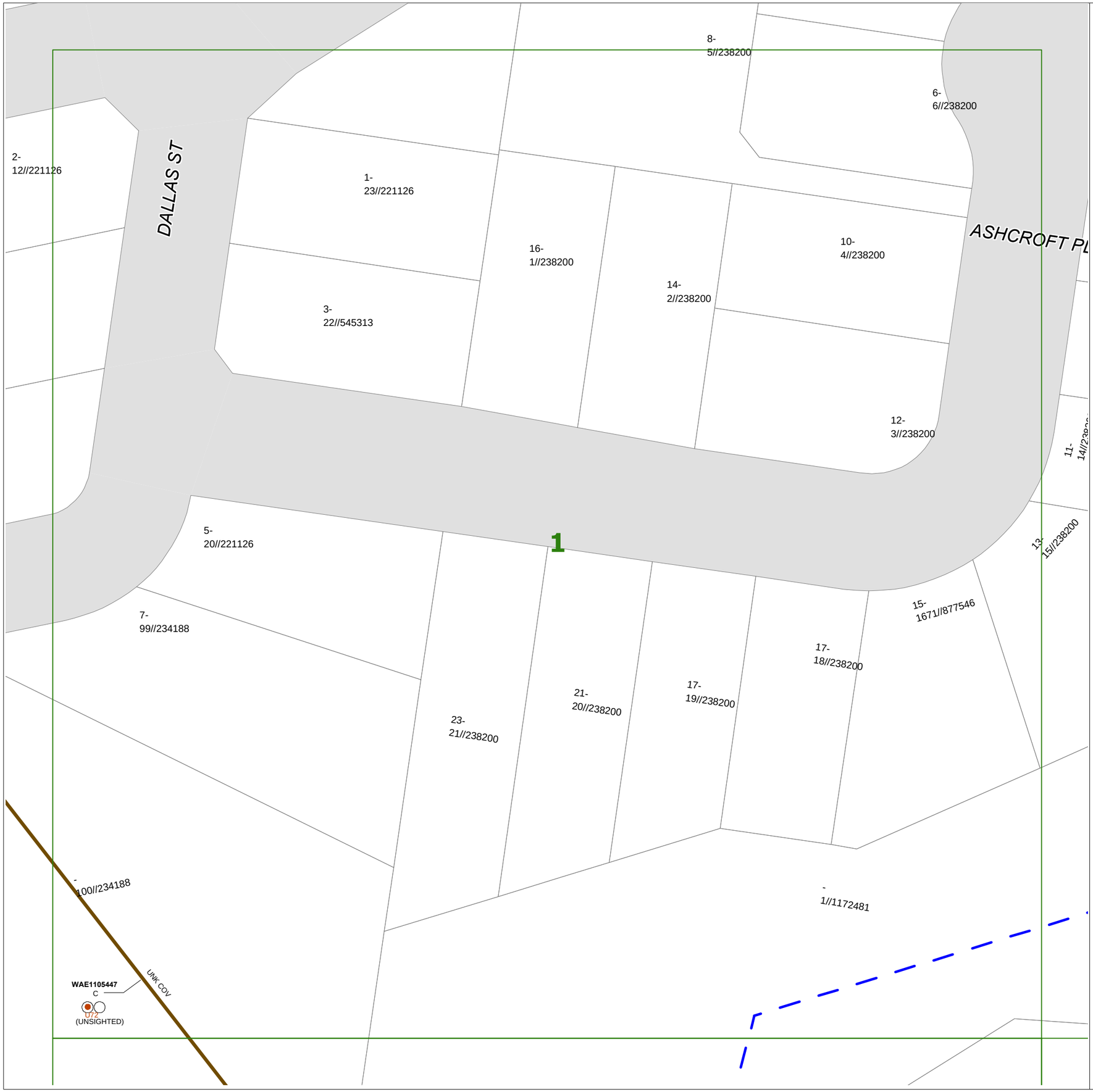
LEGEND

- Street light column (or)
- Padmount substation
- Overground pillar (O.G.Box) (or)
- Underground pit
- Duct run
- Cable run
- Typical duct section
- Asbestos warning

N

NOT TO SCALE

DBYD Sequence No.:	212805173
Issued Date:	22/06/2022



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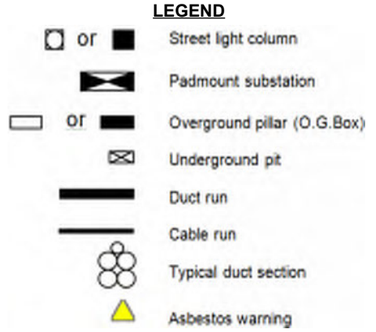

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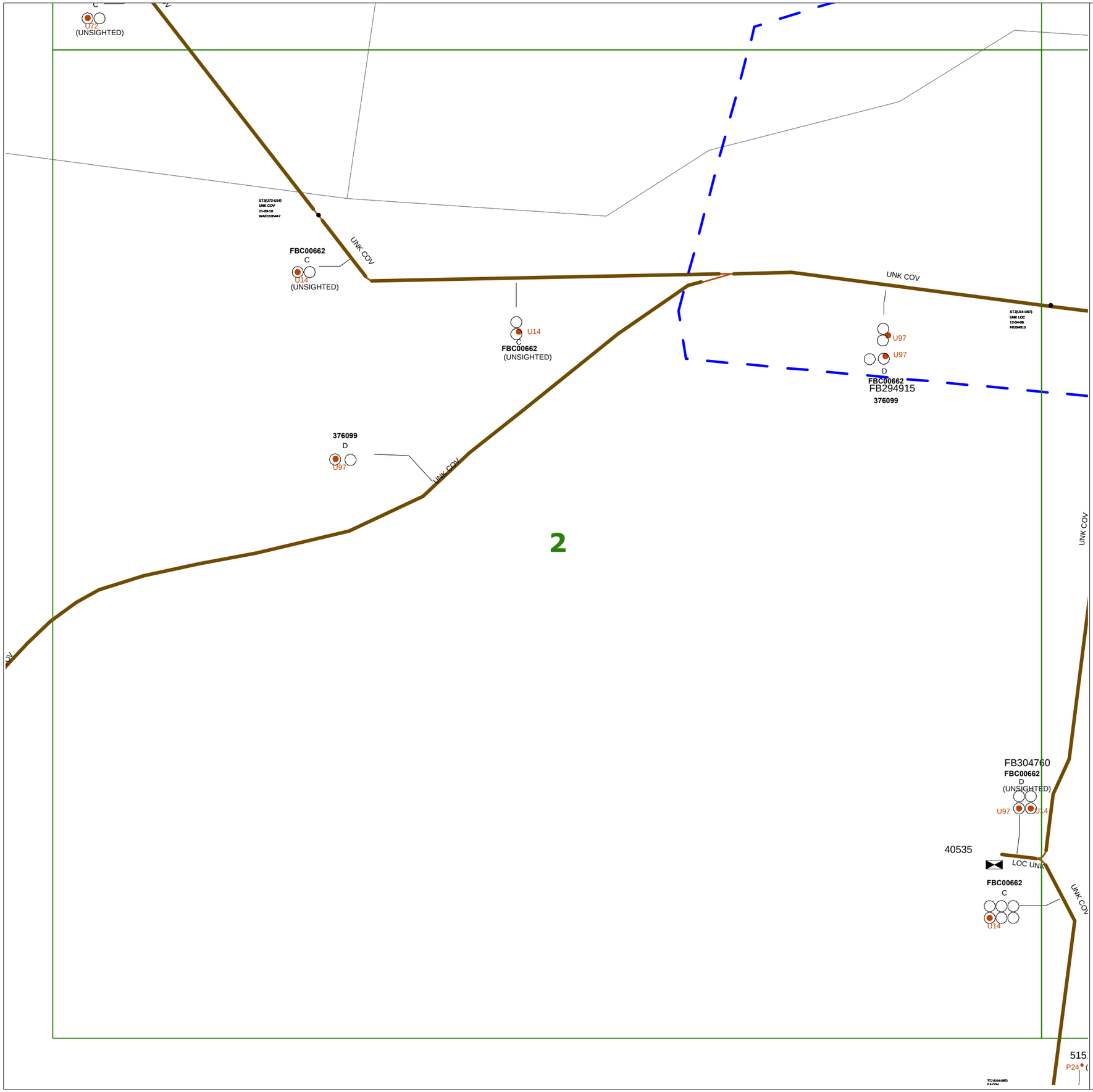

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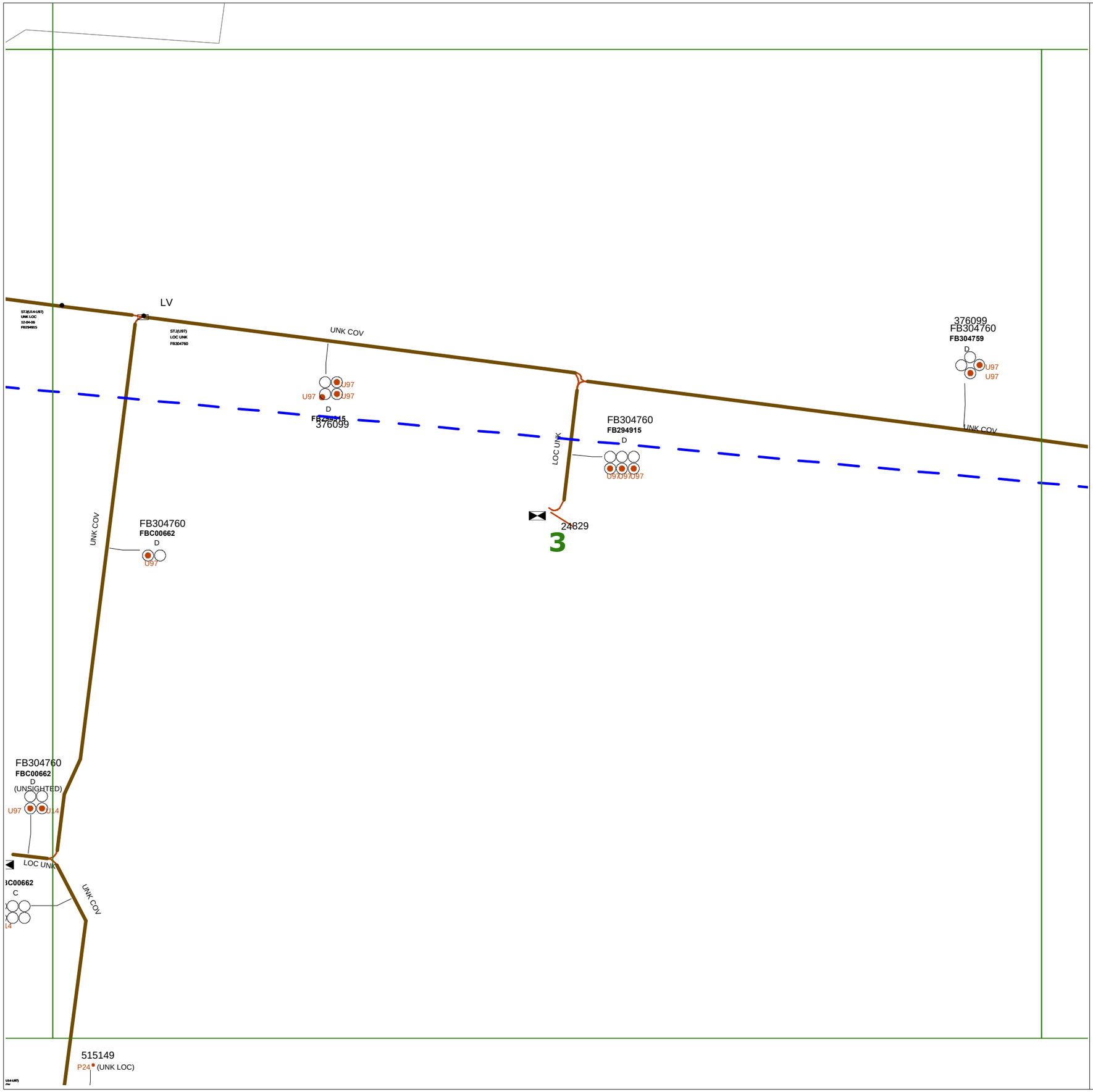

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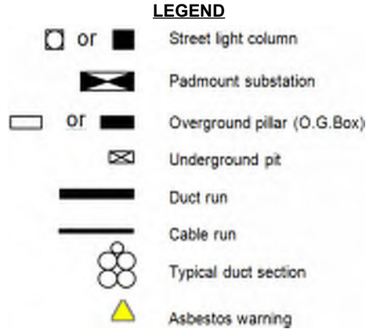

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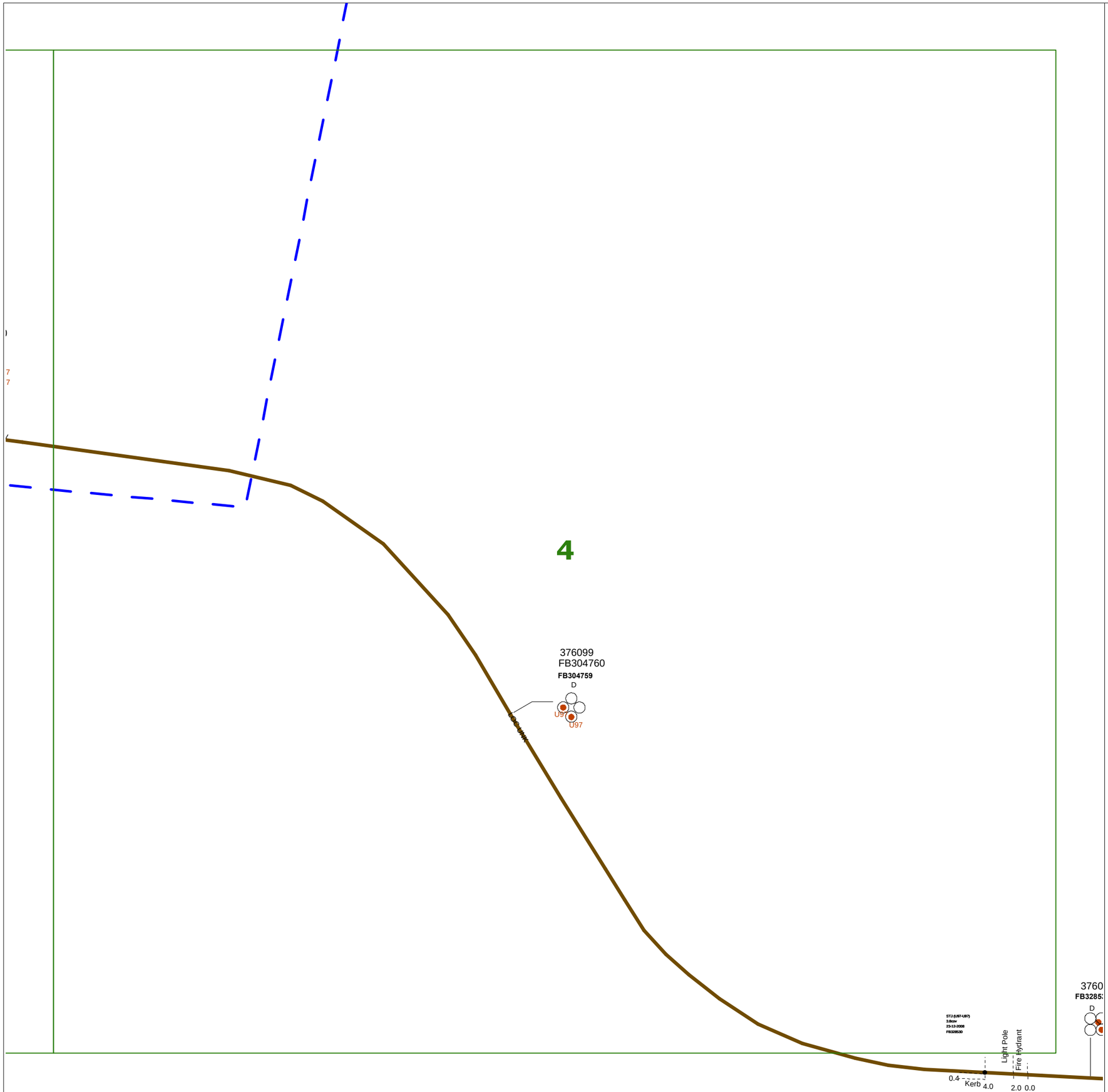

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- Cable run
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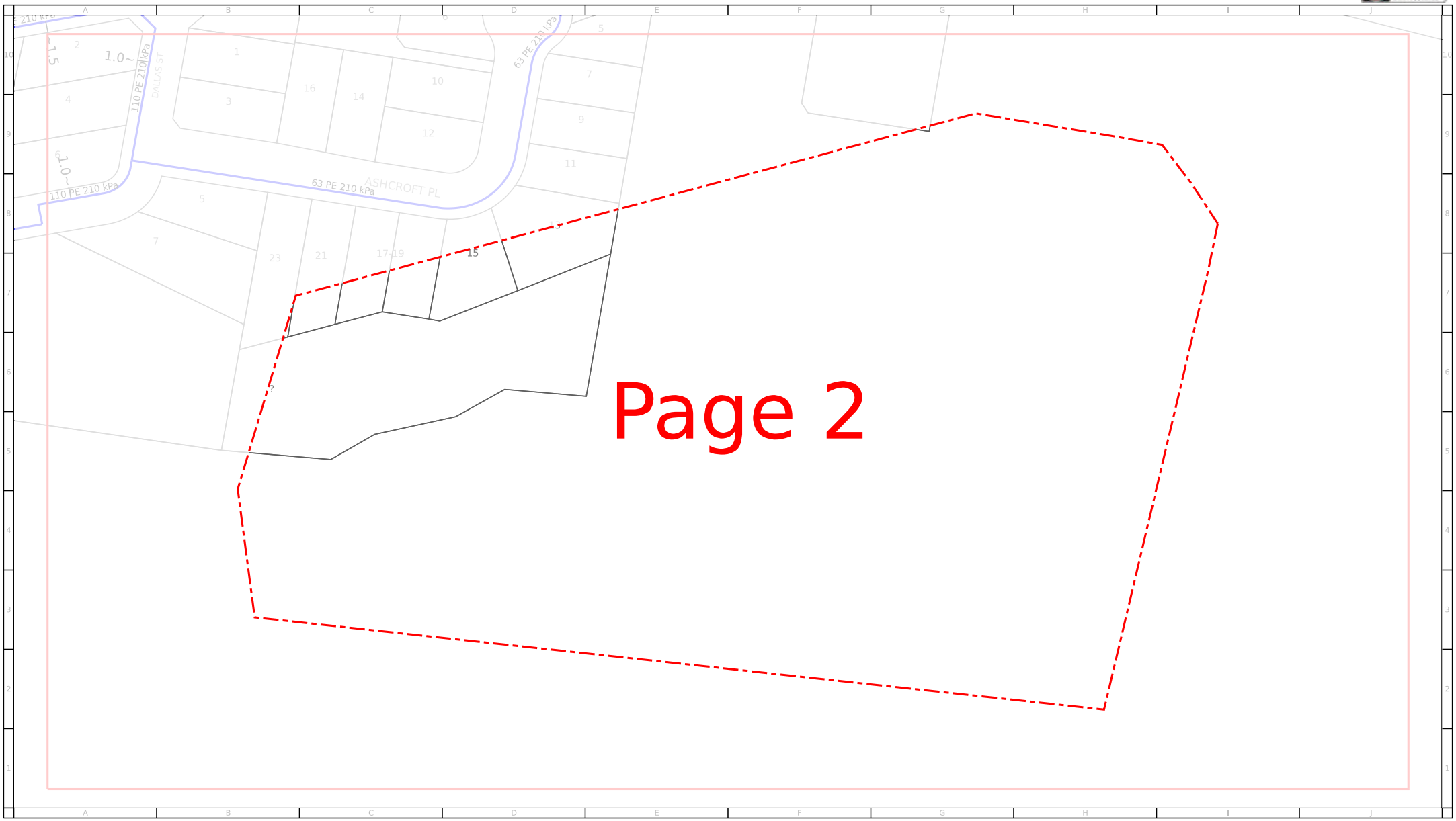
N

NOT TO SCALE

DBYD Sequence No.:	212805173
Issued Date:	22/06/2022

DBYD Authority: Jemena Gas Networks (NSW) DBYD Location: 15 Falder Place Keiraville NSW, 2500



Jemena
ABN 87 003 004 322

For legend details, please refer to the Coversheet attachment provided as part of this DBYD response.

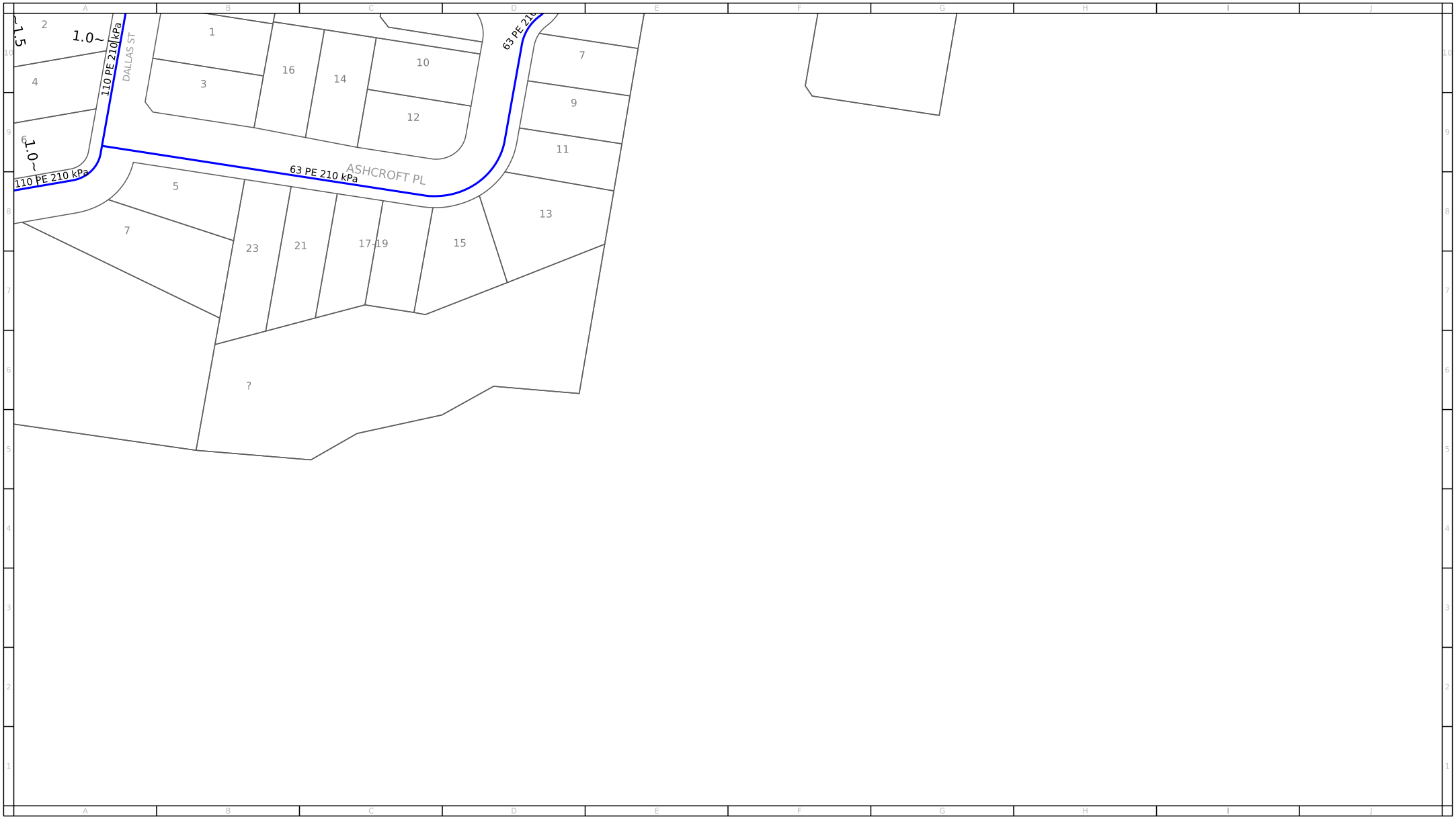
N
W
E
S

Scale: 1:2101

Issue Date: 22/06/2022
DBYD Seq No: 212805170
DBYD Job No: 32187483
Overview Page:

DBYD Authority: Jemena Gas Networks (NSW)

DBYD Location: 15 Falder Place Keiraville NSW, 2500



For legend details, please refer to the Coversheet attachment provided as part of this DBYD response.

Issue Date: 22/06/2022

DBYD Seq No: 212805170

DBYD Job No: 32187483

Scale: 1:2000

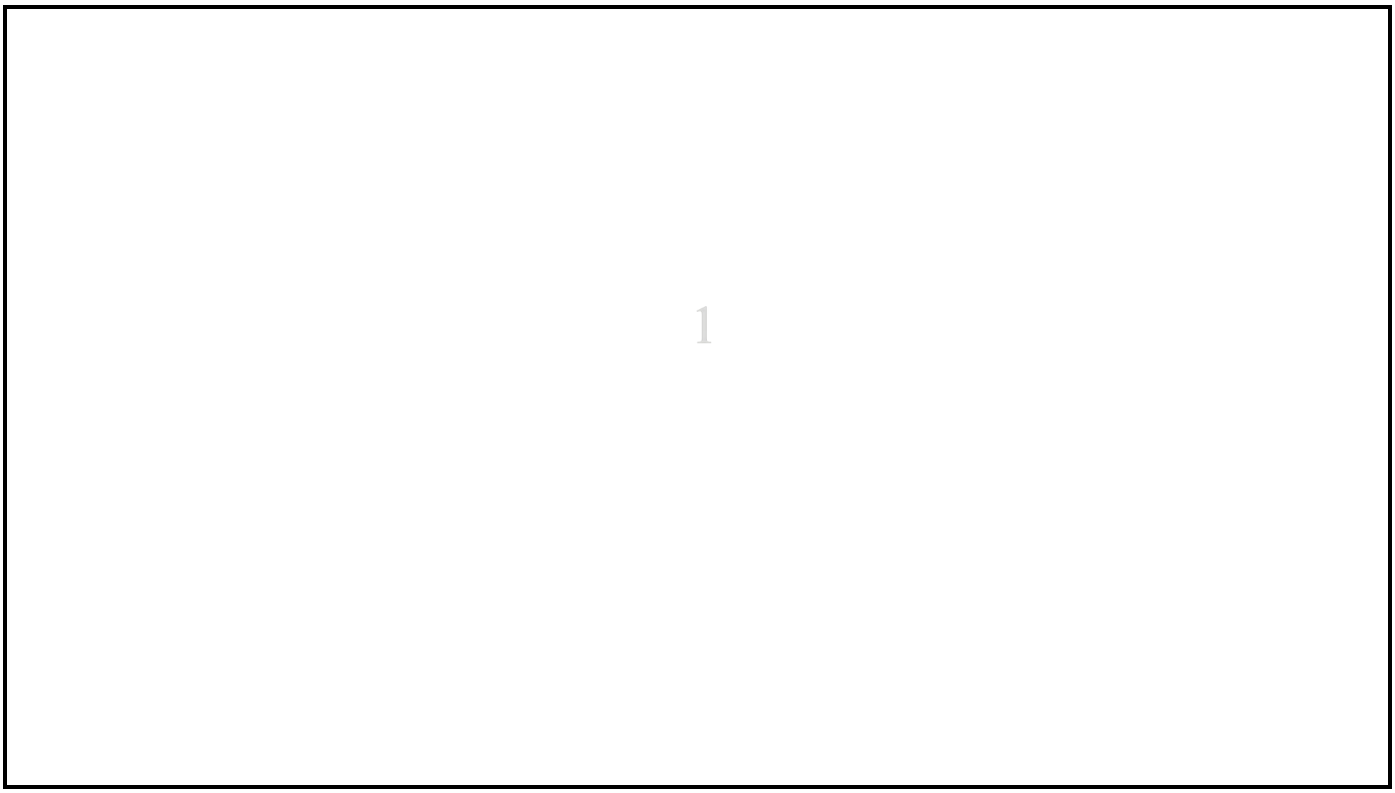
0m 10m 20m 30m 40m 50m 60m 70m 80m

WARNING: This is a representation of Jemena Gas Networks underground assets only and may not indicate all assets in the area. It must not be used for the purpose of exact asset location in order to undertake any type of excavation. This plan is diagramatic only, and distances scaled from this plan may not be accurate. Please read all conditions and information on the attached information sheet. This extract is subject to those conditions. The information contained on this plan is only valid for 28 days from the date of issue.

To:	Chris Cook
Phone:	Not Supplied
Fax:	Not Supplied
Email:	christopher.cook@cardno.com.au

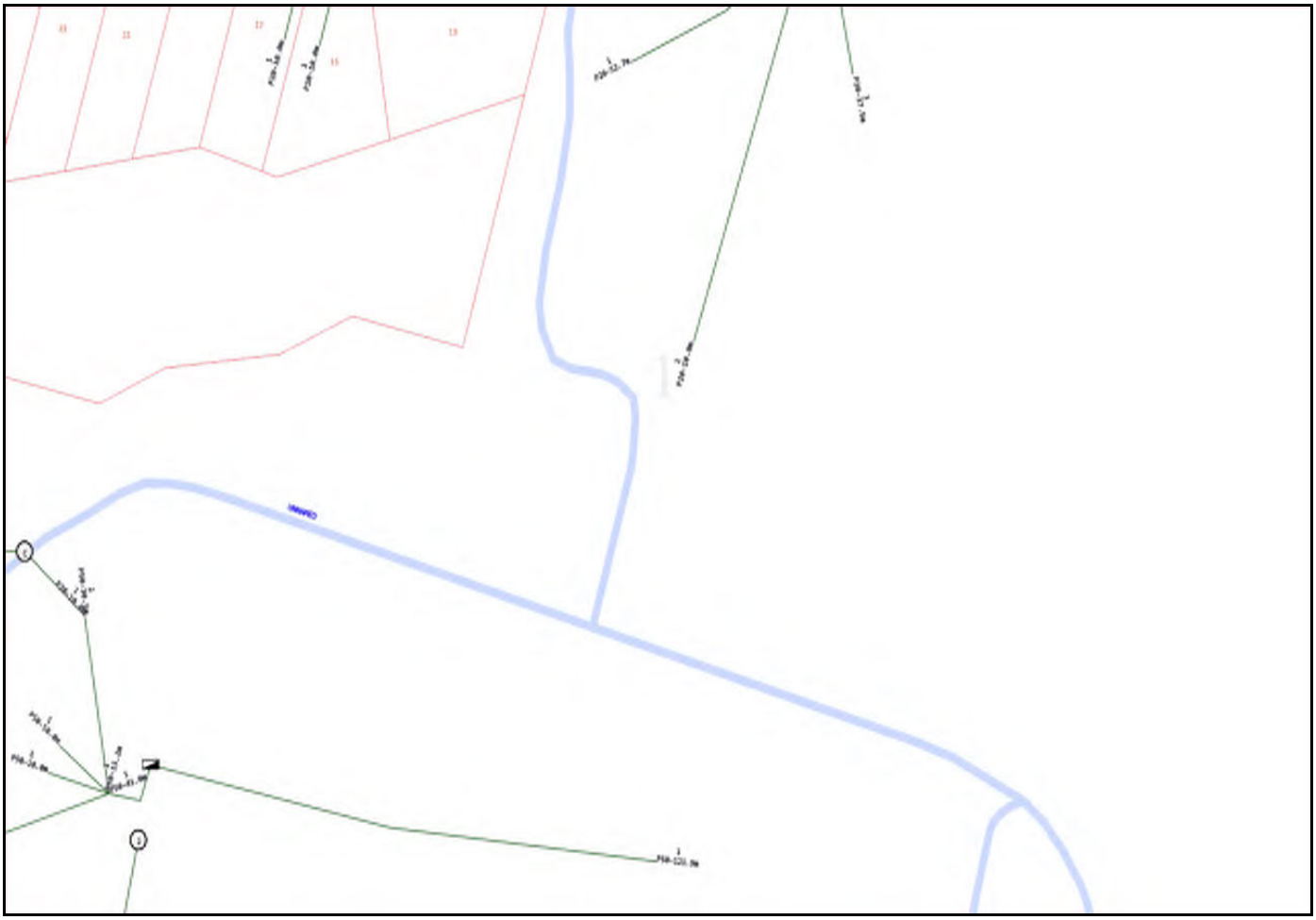
Dial before you dig Job #:	32187483
Sequence #	212805168
Issue Date:	22/06/2022
Location:	15 Falder Place , Keiraville , NSW , 2500

Indicative Plans



LEGEND

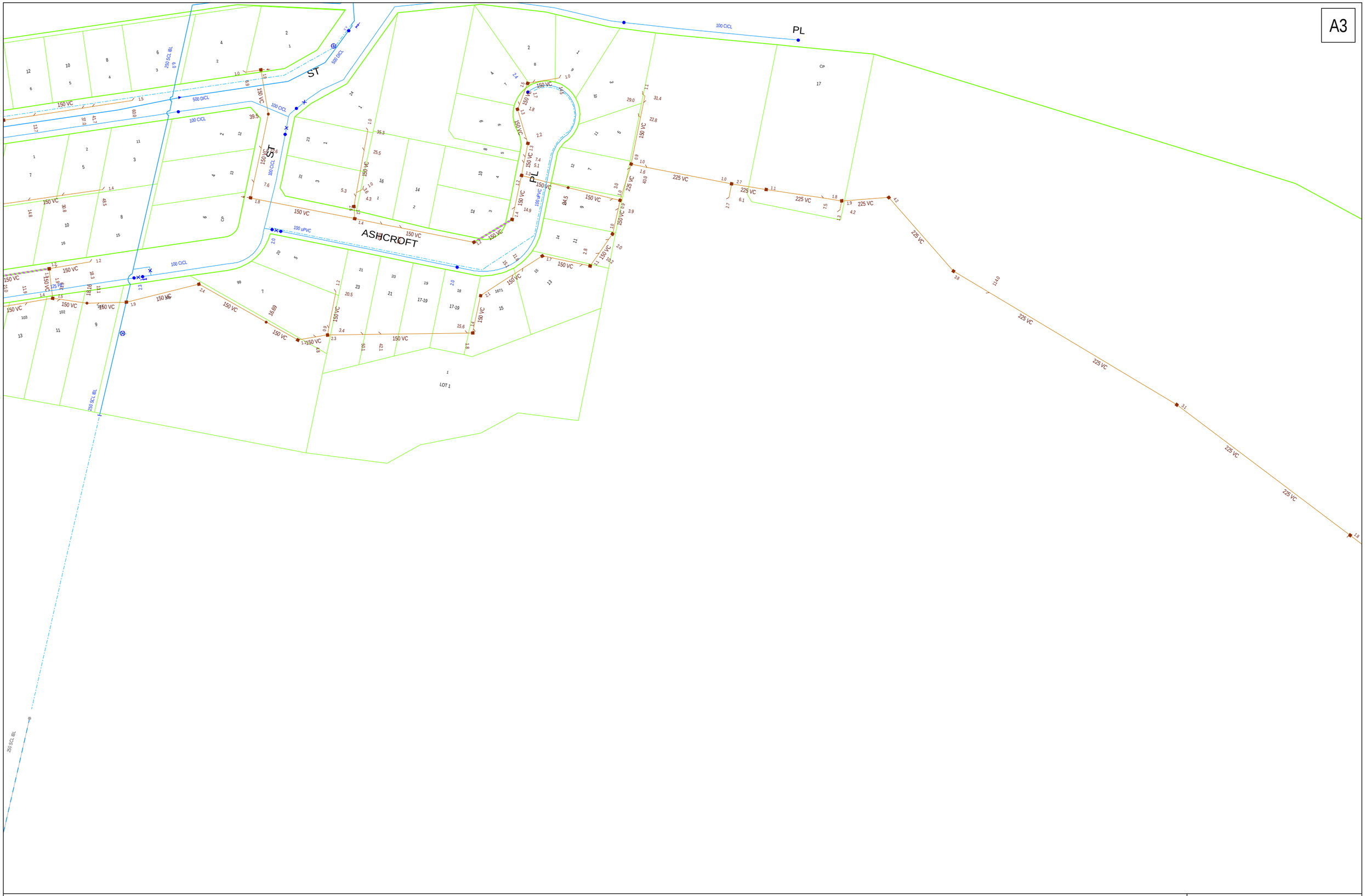
34	Parcel and the location
5	Pit with size "5"
2E	Power Pit with size "2E". Valid PIT Size: e.g. 2E, 5E, 6E, 8E, 9E, E, null.
	Manhole
	Pillar
2 PO – T- 25.0m P80 – 20.0m 5 9	Cable count of trench is 2. One "Other size" PVC conduit (PO) owned by Telstra (-T-), between pits of sizes, "5" and "9" are 25.0m apart. One 80mm PVC conduit (P80) owned by NBN, between pits of sizes, "5" and "9" are 20.0m apart.
2 10.0m 5 9	2 Direct buried cables between pits of sizes ,"5" and "9" are 10.0m apart.
5 9	Trench containing any INSERVICE/CONSTRUCTED (Copper/RF/Fibre) cables.
5 9	Trench containing only DESIGNED/PLANNED (Copper/RF/Fibre/Power) cables.
5 9	Trench containing any INSERVICE/CONSTRUCTED (Power) cables.
BROADWAY ST	Road and the street name "Broadway ST"
Scale	0 20 40 60 Meters 1:2000 1 cm equals 20 m



Emergency Contacts

You must immediately report any damage to the **nbn™** network that you are/become aware of. Notification may be by telephone - 1800 626 329.

A3



DBYD Address:
15 Falder Place
Keiraville NSW 2500

DBYD Job No: 32187483

DBYD Sequence No: 212805172

Scale: 1:1500

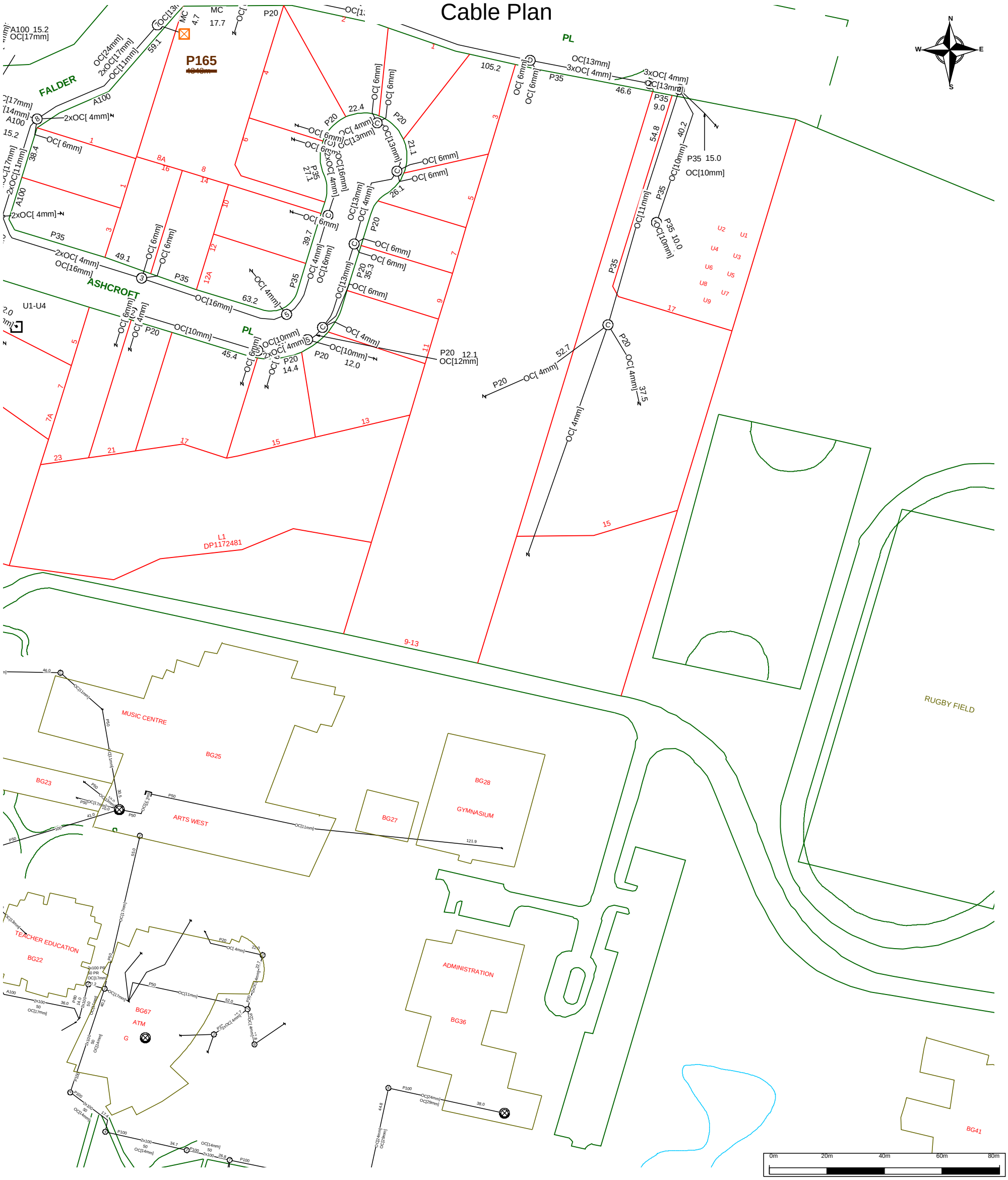
Date of Production: 22/06/2022

Plan 1 of 1

N

0m 9m 18m 27m 36m

Cable Plan



Telstra	For all Telstra DBYD plan enquiries - email - Telstra.Plans@team.telstra.com For urgent onsite contact only - ph 1800 653 935 (bus hrs)
TELSTRA CORPORATION LIMITED A.C.N. 051 775 556	
Generated On 22/06/2022 10:14:48	

Sequence Number: 212805169

Please read Duty of Care prior to any excavating

The above plan must be viewed in conjunction with the Mains Cable Plan on the following page

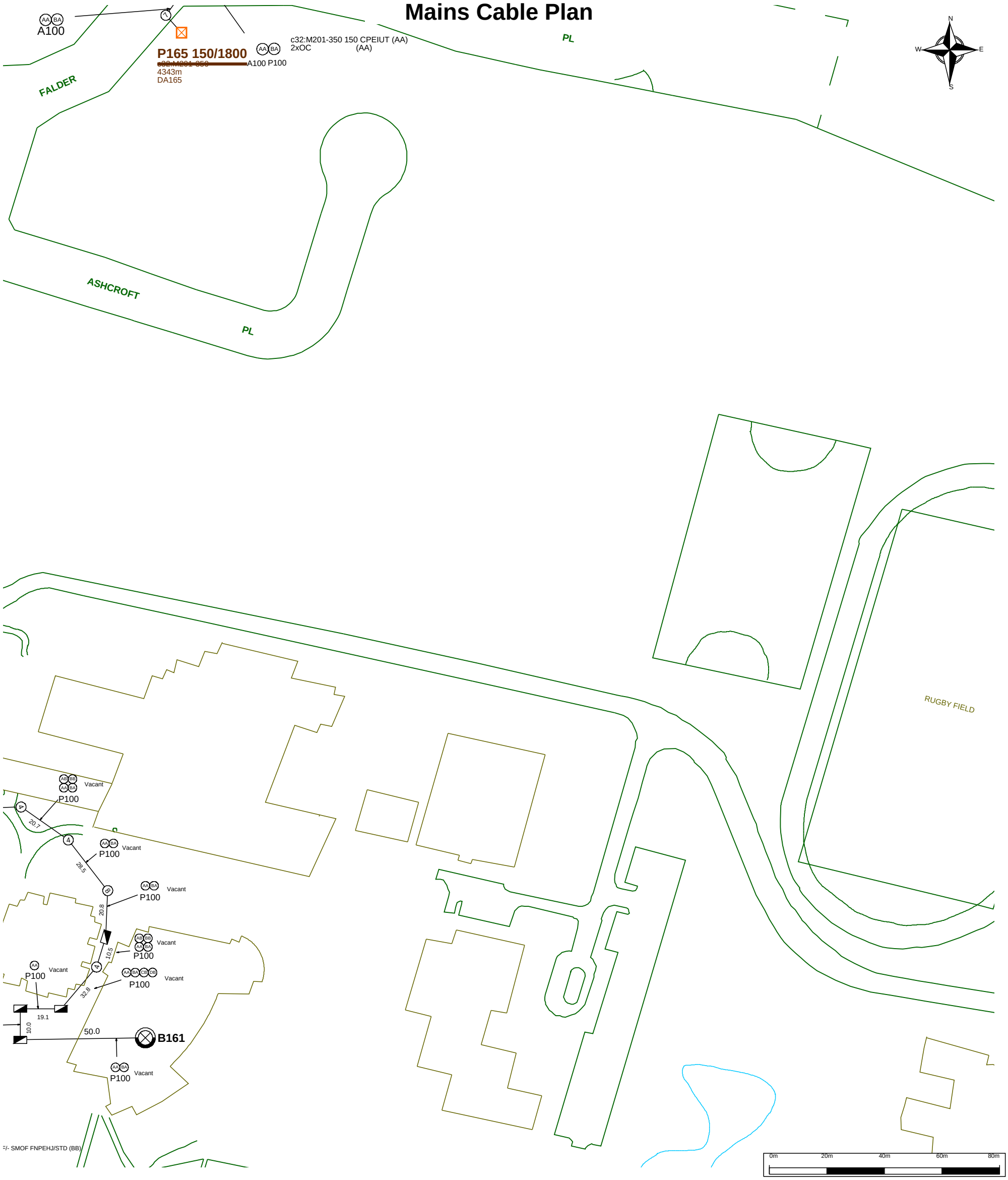
WARNING - Due to the nature of Telstra underground plant and the age of some cables and records, it is impossible to ascertain the precise location of all Telstra plant from Telstra's plans. The accuracy and/or completeness of the information supplied can not be guaranteed as property boundaries, depths and other natural landscape features may change over time, and accordingly the plans are indicative only. Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for any inaccuracy shown on the plans.

It is your responsibility to locate Telstra's underground plant by careful hand pot-holing prior to any excavation in the vicinity and to exercise due care during that excavation.

Please read and understand the information supplied in the duty of care statement attached with the Telstra plans. TELSTRA WILL SEEK COMPENSATION FOR LOSS CAUSED BY DAMAGE TO ITS PLANT.

Telstra plans and information supplied are valid for 60 days from the date of issue. If this timeframe has elapsed, please reapply for plans.

Mains Cable Plan



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email - Telstra.Plans@team.telstra.com
For urgent onsite contact only - ph 1800 653 935 (bus hrs)

Sequence Number: 212805169

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TELSTRA CORPORATION LIMITED A.C.N. 051 775 556

Generated On 22/06/2022 10:14:49

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Appendix G

Stage 1 Procedure for Aboriginal Cultural Heritage Consultation and Investigation (PACHCI) (TfNSW, 2022)

2/04/2022

[redacted]
Environment and Sustainability
Safety, Environment and Regulation

[redacted]

This letter is an update on previous PACHCI Stage 1 and covers preliminary assessment results for M1 Princes Motorway, Mount Ousley Interchange of the Procedure for Aboriginal cultural heritage consultation and investigation (the procedure)

The project, as indicated in the Procedure for Aboriginal cultural heritage consultation and the AHIMS search was assessed as being unlikely to have an impact on Aboriginal cultural heritage.

The assessment is based on the following due diligence considerations:

- The project is unlikely to harm known Aboriginal objects or places (AHIMS sites).
- The AHIMS search did not indicate high concentrations of Aboriginal objects or places in the proposed project scope.

Your project may proceed in accordance with the environmental impact assessment process, as relevant, and all other relevant approvals.

If the scope of your project changes, you must contact Wayne Davis, Aboriginal Cultural Heritage Partner and your regional environmental staff to reassess any potential impacts on Aboriginal cultural heritage.

TfNSW staff and/or contractors should be aware of the potential of Aboriginal objects (including skeletal remains) being discovered during the course of the project, if this occurs all works in the vicinity of the find must cease. Follow the steps outlined in the Roads and Maritime Services' *Unexpected Archaeological Finds Procedure.*

For further assistance in this matter do not hesitate to contact me.

Yours sincerely

[redacted]
Aboriginal Cultural Heritage Partner – Southern

Stage 1 TfNSW assessment

Procedure for Aboriginal cultural heritage consultation and investigation: Resource 3

Aim

The project manager (or their representative) must provide the information requested in this checklist to the regional Aboriginal cultural heritage adviser. This information will assist them in determining whether the project may affect Aboriginal cultural heritage in accordance with Stage 1 of the procedure.

Please **provide** this completed cover sheet, along with the required information, to your regional Aboriginal cultural heritage adviser.

Contact details for this project

Name of project:
M1 Princes Motorway, Mount Ousley Interchange

Date:
14 February 2022

Action	Status ☑
Item 1 Attach an overview of the project. The overview must include the known scope and extent of the proposed works; compound site requirements; access and movement of plant; re-location and/or provision of utilities; the location of noise walls, sedimentation basins, shared pathways, cycle ways, etc… See Attachment 1 for the project overview.	X
Item 2 Attach a map/plan of the study area that clearly outlines the extent and scope of the project. The map/plan should also include topographical information where available. See Attachment 2 for an aerial of the intended construction footprint.	X
Item 3 If land acquisition is required, provide details about this. The proposal would require acquisition of land owned by the TAFE NSW Wollongong Campus, the Minister for Education and the University of Wollongong. The proposal would not require any full acquisition of properties, nor any acquisition of private property. The extent of property impacts is currently being refined and consultation with affected property owners is underway.	X
Item 4 Attach a brief description of current and past land use, where known. For example, the study area land is currently used as a car park/road reserve/farming/etc. and was formally used for a car park/road reserve/farming/etc… Much of the study area consists of existing road infrastructure. A commuter car park is located just east of the Mt Ousley Road intersection with the Motorway, on Mt Ousley Road. Retaining this car park, via relocation, is considered an important element of this project. Vegetation belts line the Motorway at and north of the intersection. TfNSW and the University of Wollongong appear to own much of this land. Private property land parcels line the Motorway toward the north.	X
Item 5 Describe the timeframe for the project along with key milestones and deliverables. An REF was developed and determined for the project in November 2017. A stage 2 PACHCI assessment was completed for the works. Minor scope and design changes have occurred since determination. An addendum REF is required and being developed by Cardno. The contract is to be awarded in early 2023. All environmental assessments and the AREF are to be determined before this date.	X
Item 6 Please attach the results of the Office of Environment and Heritage's Aboriginal Heritage Information Management System **(AHIMS) Basic Search** - http://www.environment.nsw.gov.au/licences/WhatInformationCanYouObtainFromAHIMS.htm If required, please include the results of an **AHIMS Extensive Search**. These results should be plotted on a map/plan covering the study area. A basic and extensive AHIMS search was conducted on 28/01/2022. Please see Attachments 4 and 5. No Aboriginal sites are recorded within or near the proposal area.	X

Item 7 Attach the results of the following heritage searches relevant to the study area: • Native Title Register search - Searched on 28 January 2022. • State Heritage Inventory search - Searched on 28 January 2022. • Australian Heritage Database search - Searched on 28 January 2022. See Attachments 3, 4 and 5.	**X**
Item 8 Attach a copy of any heritage assessment (Aboriginal or non-Aboriginal) previously prepared for the study area/project? Please see objective link below: Aboriginal Heritage.obr	**X**
Item 9 Attach a copy of any environmental impact assessment previously prepared for the study area/project? Please see objective link below: 1.1 REF and appendices (sen...	**X**

Attachments:

1.0 Project overview
2.0 Construction footprint
3.0 Heritage search results (January 2022)
4.0 AHIMS Basic search results (January 2022)
5.0 AHIMS Extensive search results (January 2022)

Attachment 1 - Project Overview

Key features of the project include:

- An overpass from Mount Ousley Road, to allow northbound traffic to safely access the M1 Princes Motorway.
- A dedicated heavy vehicle bypass lane, to separate heavy vehicles from general southbound traffic on the M1 Princes Motorway and light vehicles exiting at Mount Ousley Road.
- A dedicated southbound heavy vehicle exit ramp to the eastern roundabout, to separate heavy and light vehicles exiting the M1 Princes Motorway to Mount Ousley Road.
- A new exit from the University of Wollongong to the M1 Princes Motorway northbound, and to Mount Ousley Road via the new overpass.
- A new entry to the University of Wollongong from the M1 Princes Motorway, for both northbound and southbound vehicles, via a new overpass from Mount Ousley Road and a new (northbound) motorway exit ramp.
- New roundabouts at Mount Ousley Road, servicing the new entrance to the University of Wollongong and for vehicles exiting the M1 Princes Motorway (from northbound and southbound lanes) at Mount Ousley Road.
- A new southbound service road, which would replace the existing southbound access from the M1 Princes Motorway to University Avenue.
- Two new heavy vehicle safety ramps.
- A new pedestrian and cyclist bridge over Mount Ousley Road and the M1 Princes Motorway, and a new shared path connecting suburbs to the north with the University of Wollongong and the TAFE NSW Wollongong campus.
- Upgrades to the existing pedestrian bridge over the M1 Princes Motorway at Northfields Avenue, including extending the bridge span and changes to the eastern access ramp.
- A new commuter car park, relocated to the southern side of the M1 Princes Motorway, with additional formalised parking spaces.
- New noise walls along the M1 Princes Motorway, between the motorway and nearby residential areas.
- New noise walls along Mount Ousley Road where required.
- Relocation of electrical, water, telecommunications, and gas services.

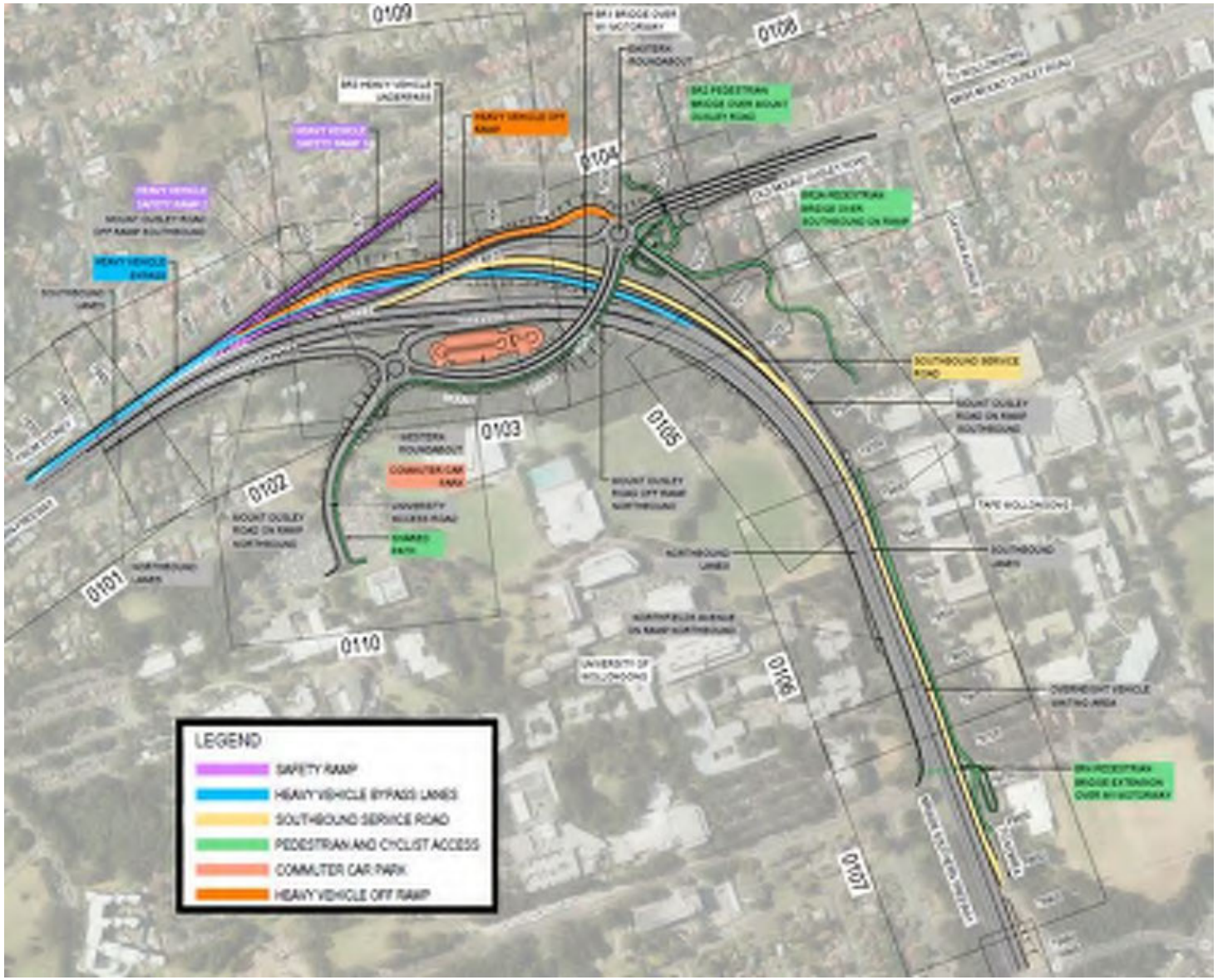


Figure 1: Project Overview

Figure 2: Potential Site Compound Location

Attachment 2 - Project footprint

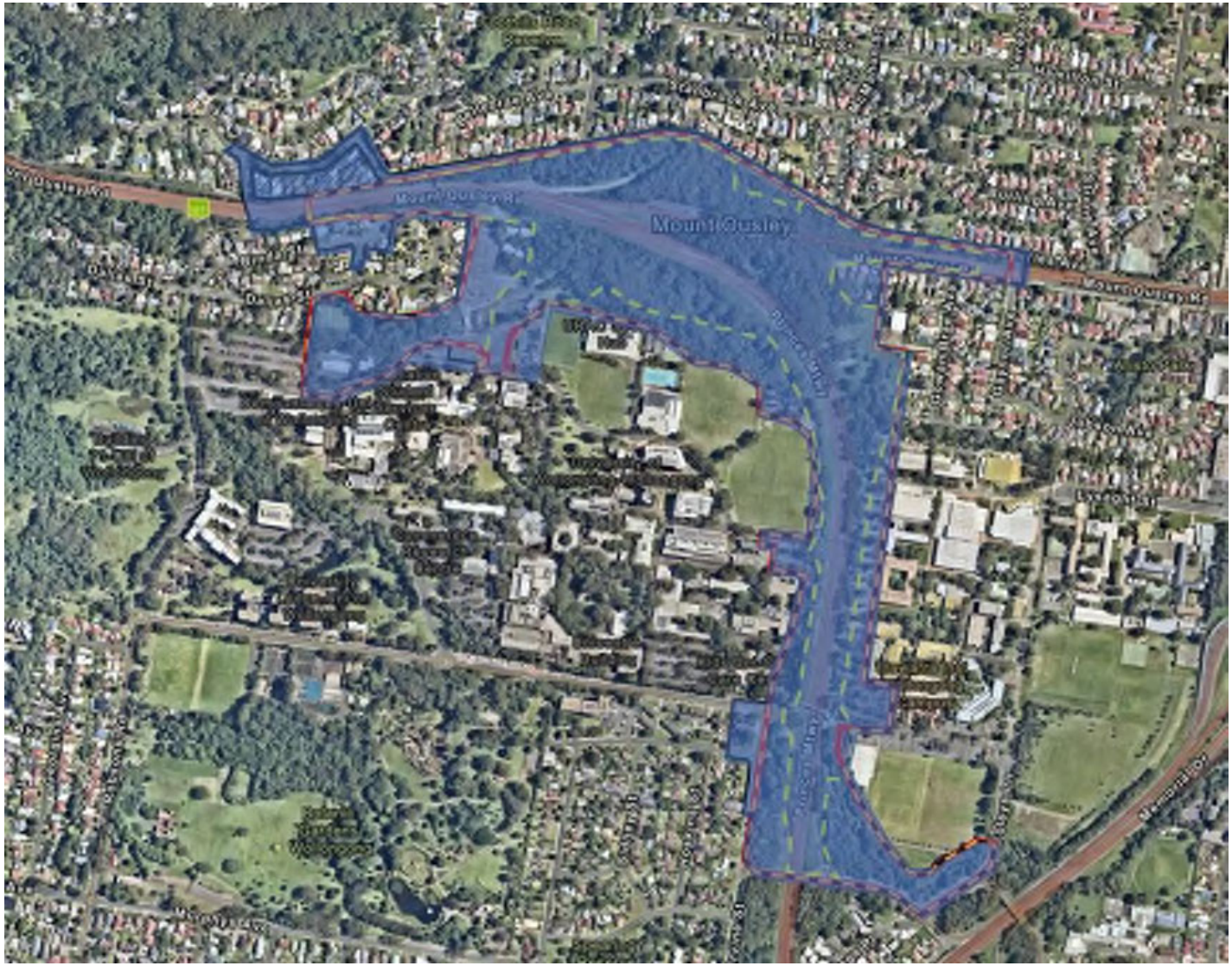


Figure 3: Project Footprint

Attachment 3 - Heritage search results

Search National Native Title Register

The National Native Title Register (NNTR) is a register established under s. 192 of the *Native Title Act 1993* (Cth).

The NNTR contains determinations of native title made by:

- the High Court of Australia
- the Federal Court of Australia
- or a recognised body such as South Australia's Supreme Court and Environment Resources and Development Court.

Further information about the NNTR is available.

Tribunal file no.	
Federal Court file no.	
Short name	
Case name	
State or Territory	New South Wales
Registered Native Title Body Corporate*	
Representative A/TSI body area	
Local government area	Wollongong City Council
Determination type	ALL
Legal process	ALL
Determination outcome	ALL
Determination date between	and
Sort by	Determination date

Search >

*Please note: current contact details for the Registered Native Title Body Corporate are available from the Office of the Registrar of Indigenous Corporations www.oric.gov.au

Your search returned **1** matches.

Short name	Case name	Legal process	Determination date	Outcome
Illawarra Local Aboriginal Land Council	New South Wales Aboriginal Land Council v New South Wales Native Title Services Limited	Unopposed	06/02/2007	Native title does not exist

State heritage inventory search

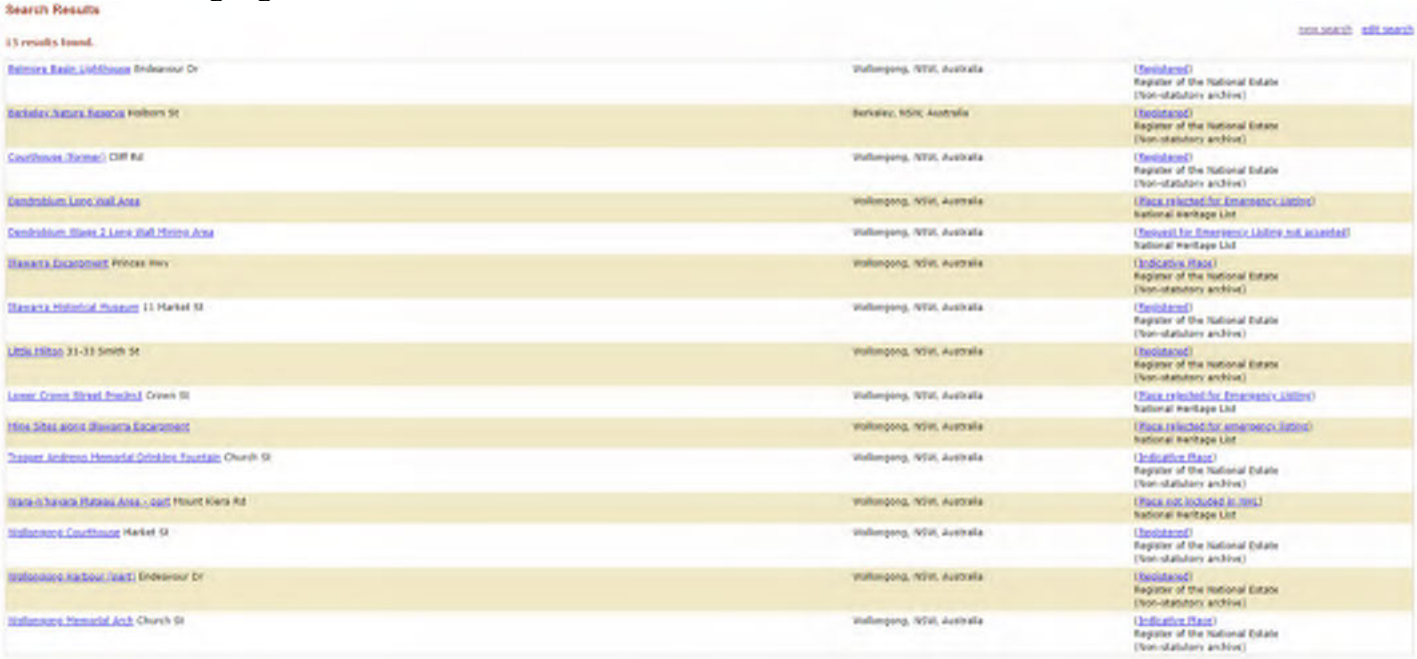
Return to the search page where you can refine/broaden your search.

State heritage inventory search result

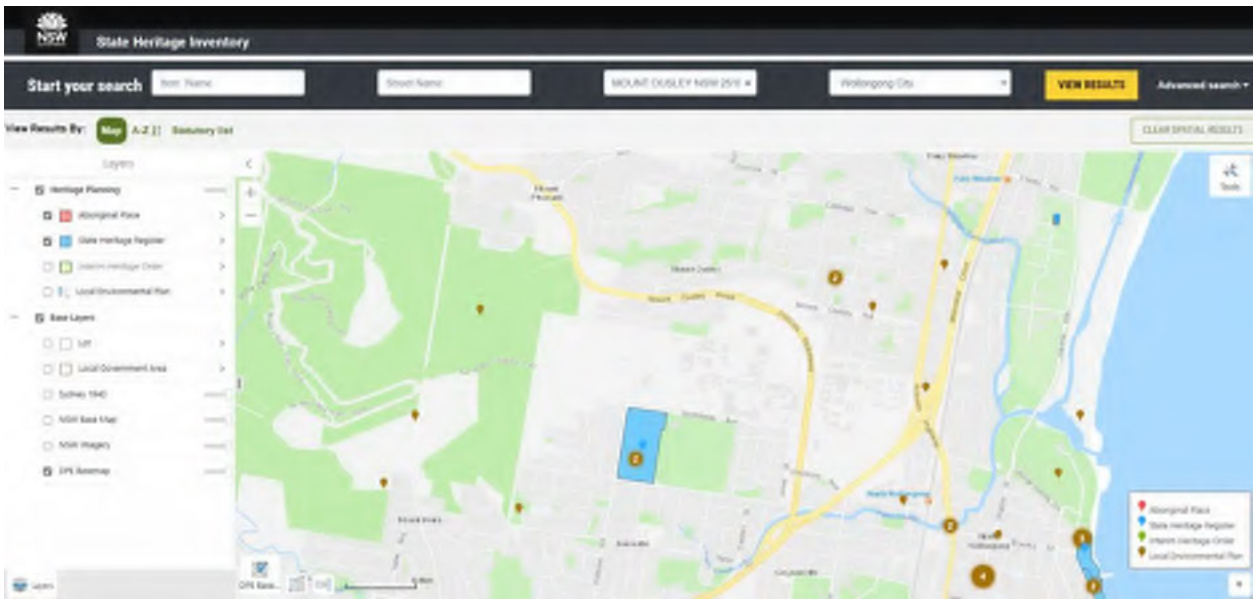
Your search returned 2 records.

Site title	Description	Category	Type	Statement	Region
Gun Battery and Fortification	One of the earliest remaining defence sites this battery was built to protect Wollongong in the 1890s. ...	Maritime Heritage Site	Archaeological-Terrestrial	One of few early defence works still extant. ...	Illawarra
Wollongong Lighthouse	Built in 1936/37 the Wollongong lighthouse was the first fully automatic lighthouse in Australia. ...	Maritime Heritage Site	Built	First fully automatic electric light in Australia. ...	Illawarra

Search: ‘Wollongong’



Search: ‘Mount Ousley’



Attachment 4 - AHIMS Basic search result (28 January 2022)

AHIMS Web Services (AWS)
Search Result

[redacted]

Client Service ID : 654838

Date: 28 January 2022

[redacted]

Dear Sir or Madam:

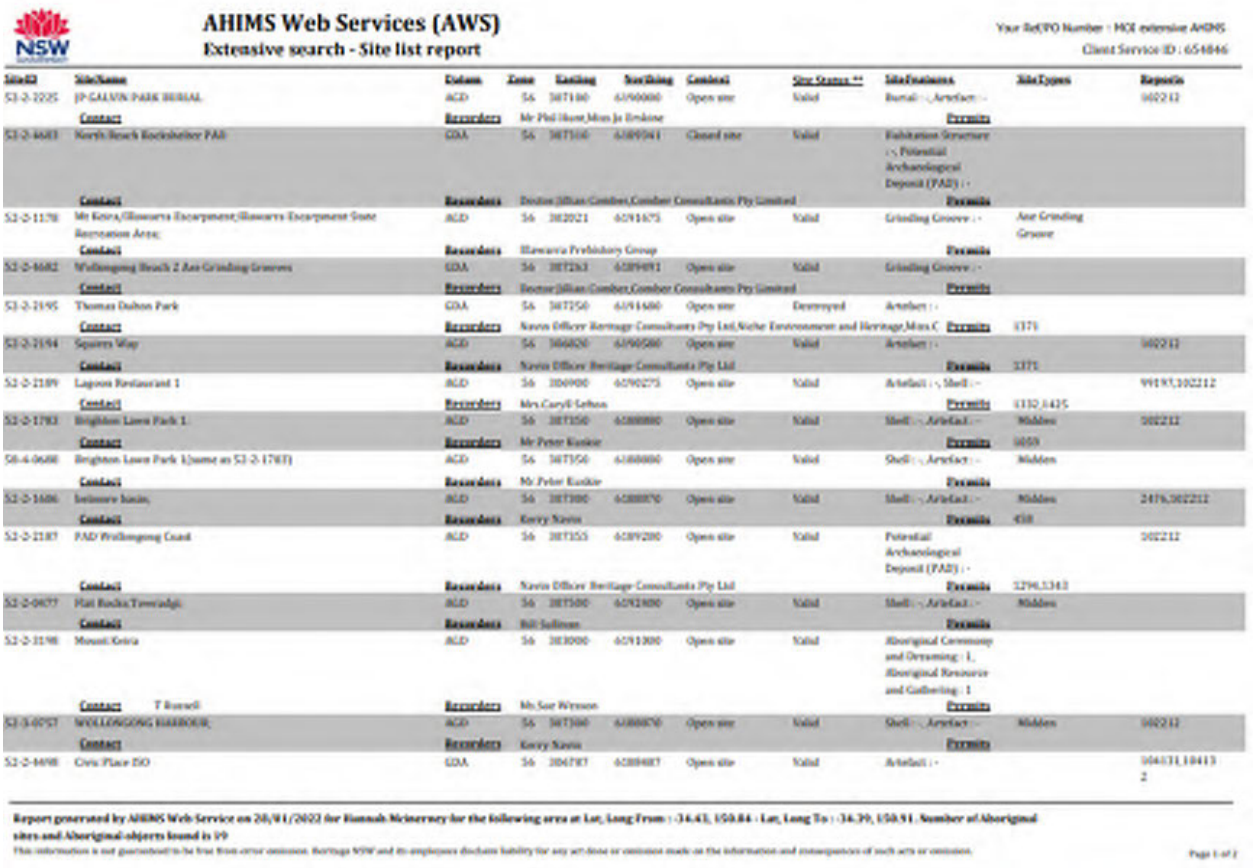
AHIMS Web Service search for the following area at Lat, Long From : -34.42, 150.85 - Lat, Long To : -34.39, 150.91, conducted by Hannah Mcinerney on 28 January 2022.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.

A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

11	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *

Attachment 5 - AHIMS Extensive search result (28 January 2022)



AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : MOI extensive AHIMS
Client Service ID : 654846

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
52-2-2225	JP GALVIN PARK BURIAL	AGD	56	307180	6190000	Open site	Valid	Burial : -,Artefact : -		102212
	Contact	Recorders	Mr Phil Hunt,Miss Jo Erskine					Permits		
52-2-4683	North Beach Rockshelter PAD	GDA	56	307500	6189941	Closed site	Valid	Habitation Structure : -, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Dextor Jillian Comber,Comber Consultants Pty Limited					Permits		
52-2-1170	Mr Keira,Illawarra Escarpment,Illawarra Escarpment State Recreation Area;	AGD	56	302021	6191675	Open site	Valid	Grinding Groove : -	Axe Grinding Groove	
	Contact	Recorders	Illawarra Prehistory Group					Permits		
52-2-4682	Wollongong Beach 2 Axe Grinding Grooves	GDA	56	307263	6189491	Open site	Valid	Grinding Groove : -		
	Contact	Recorders	Dextor Jillian Comber,Comber Consultants Pty Limited					Permits		
52-2-2195	Thomas Dalton Park	GDA	56	307250	6191680	Open site	Destroyed	Artefact : -		
	Contact	Recorders	Navin Officer Heritage Consultants Pty Ltd,Niche Environment and Heritage,Miss C					Permits	1371	
52-2-2194	Squires Way	AGD	56	306820	6190500	Open site	Valid	Artefact : -		102212
	Contact	Recorders	Navin Officer Heritage Consultants Pty Ltd					Permits	1371	
52-2-2189	Lagoon Restaurant 1	AGD	56	306900	6190275	Open site	Valid	Artefact : -, Shell : -		99197,102212
	Contact	Recorders	Mrs Caryll Lebon					Permits	1132,1425	
52-2-1783	Brighton Lawn Park 1;	AGD	56	307350	6188880	Open site	Valid	Shell : -, Artefact : -	Midden	102212
	Contact	Recorders	Mr Peter Kuskie					Permits	1659	
58-4-0688	Brighton Lawn Park 1(same as 52-2-1783)	AGD	56	307350	6188880	Open site	Valid	Shell : -, Artefact : -	Midden	
	Contact	Recorders	Mr Peter Kuskie					Permits		
52-2-1686	Swimmers basin;	AGD	56	307300	6188870	Open site	Valid	Shell : -, Artefact : -	Midden	2476,102212
	Contact	Recorders	Kerry Navin					Permits	458	
52-2-2187	PAD Wollongong Coast	AGD	56	307355	6189200	Open site	Valid	Potential Archaeological Deposit (PAD) : -		102212
	Contact	Recorders	Navin Officer Heritage Consultants Pty Ltd					Permits	1296,1343	
52-2-0677	Flat Rocks Tawradgi;	AGD	56	307500	6192400	Open site	Valid	Shell : -, Artefact : -	Midden	
	Contact	Recorders	Bill Sullivan					Permits		
52-2-2198	Mount Keira	AGD	56	303000	6191300	Open site	Valid	Aboriginal Ceremony and Dreaming : 1, Aboriginal Resource and Gathering : 1		
	Contact T Russell	Recorders	Ms Sue Wesson					Permits		
52-3-0757	WOLLONGONG HARBOUR;	AGD	56	307300	6188870	Open site	Valid	Shell : -, Artefact : -	Midden	102212
	Contact	Recorders	Kerry Navin					Permits		
52-2-4498	Civic Place DO	GDA	56	306787	6188487	Open site	Valid	Artefact : -		104131,10413 2

Report generated by AHIMS Web Service on 28/01/2022 for Hannah Mcinerney for the following area at Lat, Long From : -34.43, 150.84 - Lat, Long To : -34.39, 150.91. Number of Aboriginal sites and Aboriginal objects found is 19

This information is not guaranteed to be free from error omission. Heritage NSW and its employees disclaim liability for any act done or omission made on the information and consequences of such acts or omission.

Page 1 of 2

AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : MOI extensive AHIMS
Client Service ID : 654846

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
	Contact	Recorders	Illoura Pty Ltd - Wollongong,Mrs Samantha Keats					Permits	4360,4942	
52-2-2067	Stuart Park	GDA	56	306981	6190300	Open site	Partially Destroyed	Burial : -,Potential Archaeological Deposit (PAD) : -	Burial,/s	102212,10444 1
	Contact	Recorders	4100375,Illoura Pty Ltd - Wollongong,Mrs Samantha Keats					Permits	4823	
52-2-2193	Osborne Park	AGD	56	307200	6188950	Open site	Valid	Artefact : -		98110
	Contact	Recorders	Navin Officer Heritage Consultants Pty Ltd					Permits	1370,1371,1408	
52-2-4681	Wollongong Beach Midden 1	GDA	56	307352	6189220	Open site	Valid	Shell : -		
	Contact	Recorders	Dextor Jillian Comber,Comber Consultants Pty Limited					Permits		
52-2-4695	North Beach PAD 1	GDA	56	307130	6190095	Open site	Not a Site	Potential Archaeological Deposit (PAD) : -		104441
	Contact	Recorders	Illoura Pty Ltd - Wollongong,Illoura Pty Ltd - Wollongong,Mrs Samantha Keats,Mrs S					Permits	4629	

AHIMS Web Services (AWS)
Search Result

Your Ref/PO Number : MOI extensive AHIMS
Client Service ID : 654846

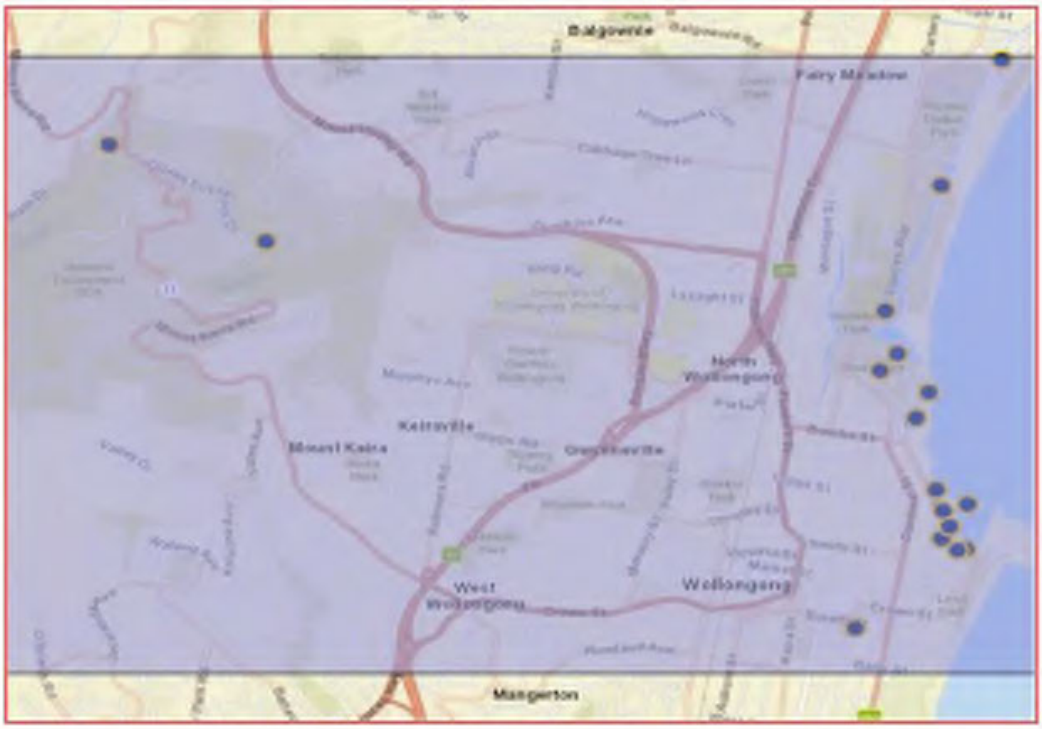
Date: 28 January 2022

[redacted]

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lat, Long From : -34.43, 150.84 - Lat, Long To : -34.39, 150.91, conducted by Hannah Mcinerney on 28 January 2022.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

19	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *