

ATTACHMENT B: CUMBERLAND ECOLOGY BIODIVERSITY RESPONSE

12 April 2021

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St Marys Regional Detention Basins C and V6 – Addendum to a SIS in Relation to DA19/0810

Dear Dael,

The purpose of this letter is to provide an addendum to a Species Impact Statement (SIS) and respond to Penrith City Council's (Council's) Request for Information (RFI) in relation to the development application (DA) for vegetation removal and construction of Regional Detention Basins C and V6 (DA19/0810) on the St Marys Development Site (SMDS). The RFI letter provided by Council (dated 20 April 2020) followed the pre-lodgement meeting and written advice dated 12 November 2019 in relation to the DA.

Impacts to threatened species, populations and ecological communities, as listed under the *NSW Threatened Species Conservation Act 1995*, as result of the proposed development, have been assessed under the *NSW Environmental Planning and Assessment Act 1979* (EP&A Act) with preparation of a Species Impact Statement (SIS). The SIS prepared by Cumberland Ecology (2019) assessed impacts to biodiversity from the construction of Basin C and Basin V6, with a disturbance footprint defined by the 'Drainage' zone, as per the St Marys Regional Environment Plan No. 30 (SREP 30) boundary, and existing access tracks, to be utilised during construction.

Cumberland Ecology provided a preliminary response to Council's RFI (17209 Let9, dated 12 June 2020) in relation to biodiversity, and recommended that an addendum to the SIS be prepared. Council provided an informal response to the preliminary response to the RFI (emails dated 6 November 2020 and 14 December 2020), requesting further details in relation to the haul road use.

Lendlease is currently finalising a formal response to Council's latest RFIs, including further details in relation to the engineering designs for both Basins. The revised plans are outlined in the Stormwater Management Plan, prepared by (ADW Johnson Pty Limited, March 2021).

In order to respond to Council's latest RFIs, and adequately assess the additional impacts to biodiversity, an addendum to the SIS report has been prepared, as included in Appendix A to this letter.

This addendum incorporates the latest engineering plans and identifies all activities required from an ecological standpoint. This was compiled to ensure all biodiversity impacts with DA19/0810 are properly considered. This includes impacts arising from the construction of the haul road as well as those tied to Council's requirements to have ongoing access to both basins for maintenance purposes.

The findings of the Addendum to the SIS indicate there is a slight reduction in clearing of Cumberland Plain Woodland, listed as a critically endangered ecological community under the Biodiversity Conservation Act 2016 (and the former *Threatened Species Conservation Act 1995* – repealed), resulting in impacts to biodiversity that are of the same scale as identified in the SIS. No significant impacts in terms of the NSW *Environmental Planning and Assessment Act 1979* are expected to occur, and no further amendments to the SIS are required.

If you require any further information, please contact me by email.

Yours sincerely,



Vanessa Orsborn
Senior Project Manager/Ecologist
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APPENDIX A :

Addendum to SIS

A.1. Introduction

Cumberland Ecology was requested by Lendlease to provide an addendum to a Species Impact Statement (SIS) to respond to Penrith City Council's (Council's) Requests for Information (RFI) in relation to the development application (DA) for vegetation removal and construction of Regional Detention Basins C and V6 (DA19/0810) on the St Marys Development Site (SMDS). The RFI letter provided by Council (dated 20 April 2020) followed the pre-lodgement meeting and written advice dated 12 November 2019 in relation to the DA (see **Section A.1.1**).

A.1.1. Background

Development of the SMDS has progressed over the past 20 years in accordance with St Marys Regional Environmental Plan – 30 (SREP 30). As detailed in Section 1.4 of the SIS (Cumberland Ecology 2019) this planning framework has resulted in the delineation of development 'Precincts' and a large Regional Park (now the Wianamatta Regional Park), which is being progressively transferred to the National Parks and Wildlife Service (NPWS) division of the Department of Planning, Industry and Environment (DPIE). The development of the SMDS has involved the preparation of 'Precinct Plans', including a suite of management plan for each Precinct, and also for the Regional Park. The Precinct Plans and each management plan has been prepared in consultation with key stakeholders, including NPWS and Council, and therefore, the SIS refers to these such plans for the implementation of appropriate mitigation measures. Nonetheless, the measures suggested by Council are in-line with current accepted practices, and given that the Precinct Plan for the Western Precinct was submitted in 2009, updated protocols are considered appropriate.

A.1.2. Current DA

Impacts to threatened species, populations and ecological communities, as listed under the NSW *Threatened Species Conservation Act 1995* (now repealed and replaced by the *Biodiversity Conservation Act 2016* (BC Act)), as result of the proposed development, have been assessed under the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) with preparation of a Species Impact Statement (SIS). The SIS prepared by Cumberland Ecology (2019) assessed impacts to biodiversity from the construction of Basin C and Basin V6, with a disturbance footprint defined by the 'Drainage' zone, as per the St Marys Regional Environment Plan No. 30 (SREP 30) boundary, and existing access tracks, to be utilised during construction.

Cumberland Ecology provided a preliminary response to Council's RFI (17209 Let9, dated 12 June 2020) in relation to biodiversity, and recommended that an addendum to the SIS be prepared. Council provided an informal response to the preliminary response to the RFI (emails dated 6 November 2020 and 14 December 2020), requesting further details in relation to the haul road use.

Lendlease is currently finalising a formal response to Council's latest RFIs, including further details in relation to the engineering designs for both Basins. The revised plans are outlined in the Stormwater Management Plan, prepared by (ADW Johnson Pty Limited, March 2021).

A.1.2.1. Council RFI

The DA for Regional Detention Basins C and V6 (DA19/0810) has been reviewed by Council, who have sought further information regarding the following:

Biodiversity

The proposed measures to mitigate impacts during construction are limited in detail, and require further attention. The following matters shall be addressed:

- *Comprehensive pre-clearing mitigation measures. For example, measures to check for threatened flora and fauna species on site immediately before clearing begins and measures to relocate any identified species (with appropriate permits). This includes location and relocation of the Cumberland Plain Land Snail. This aspect is particularly relevant given a significant reliance on historical data for the SIS. Survey methodology used may not be adequate for the detection of fauna species that have recently moved into the area, especially in response to development pressures in adjacent areas;*
- *The establishment of exclusion zones to prevent damage to native vegetation and fauna habitats adjacent to the area to be cleared and to prevent the distribution of pests, weeds and disease;*
- *Specific detail relating to the re-use of woody debris and any bush rock;*
- *Mitigation measures relating to the removal of hollow-bearing trees, including mitigating the impact of hollow loss by providing supplementary fauna habitat in the form of nest boxes;*
- *Further, mitigation measures post construction should reference the application of the draft national light pollution guidelines for wildlife, where lighting is installed around the basins or in access routes; and*
- *Chapter 7 of the SIS also refers to a Vegetation Management Plan. The VMP should be reviewed by Council prior to implementation.*

Additional comments in relation to biodiversity from Council (emails dated 6 November 2020 and 14 December 2020) have been provided to Lendlease, as follows:

- Throughout the SIS, the description of the proposed works remains unclear. For example, the SIS refers to activities that are 'likely to be required'. The SIS will need to clearly state all works, so as to properly consider the biodiversity impacts.
- It is unclear whether the SIS assesses the biodiversity impacts arising from the construction of the haul road. Noting the construction of the haul road is likely to have both short- and long-term biodiversity impacts, including fragmentation and disturbance. Clarification is needed on this matter.
- In terms of the haul road being temporary – as previously advised Council's vehicles (heavy rigid 25t GVM truck 11-12m in length) will need to have ongoing access to both basins for maintenance purposes. It is understood that heavy rigid vehicle access is provided to Basin C via the haul road only. If this is the case, this haul road would not be temporary, and the assessment of the biodiversity impacts should be reflective of this.

A.1.2.2. Consultation with NPWS

In order to respond to the Council RFI, Lendlease consulted with NPWS in relation to the use of existing access tracks as haul roads for the construction and maintenance of the Regional Detention Basins. This included a

site inspection on 10 March 2021 and subsequent letter confirming the approval requirements, as attached in **Appendix B** to this letter.

A.2. Amendments to the SIS

The existing SIS (Cumberland Ecology, 2019) provides a comprehensive assessment of the impacts on biodiversity as a result of the proposed development of the subject site. The SIS should be referred to in relation to the assessment of the development, with the following minor amendments:

A.2.1. Description of Works

The development of Basins C and V6 will occur in accordance with the Stormwater Management Plan (ADW Johnson, 2021), including (but not limited to):

- Clearing of vegetation within the subject site;
- Trimming of overhanging vegetation and understorey vegetation at the edges of the existing access tracks;
- Grading of existing access tracks, for use as haul roads (gravel, not sealed) (with a total width of 10m);
- Excavation for the construction of the basins;
- Battering and fill works;
- Lining of the basins, as outlined in the Stormwater Management Plan; and
- Landscaping of the basin edges and batters, in accordance with the Landscape Management Plan

A.2.2. Amendments to the Subject Site

In response to Councils RFI, the development of a Stormwater Management Plan (ADW Johnson, 2021) has resulted in changes to clearing requirements, to account for ancillary works, such as outlet drains. Amended figures depicting the revised area of clearing is referred to as the 'subject site', as shown in **Figure 1**, and replaces the 'subject site' depicted in the SIS (Cumberland Ecology, 2019).

Vegetation removal as a result of the amended development is shown in **Figure 2**. The total area of clearing within the subject site is slightly less than anticipated in the SIS, as shown in **Table 1** below.

Table 1 Vegetation removal on the subject site as identified in the SIS (2019) and current values

Vegetation Communities	Area (ha) Removed from Subject Site - SIS (Cumberland Ecology, 2019)	Current Area (ha) Removed from Subject Site
Cumberland Plain Woodland (CEEC)	3.71	3.61
Regenerating Cumberland Plain Woodland (CEEC)	1.6	1.01
Total	5.31	4.63

A.2.3. Mitigation Measures

Mitigation measures have been detailed in the SIS (Cumberland Ecology 2019), and include the Precinct-wide measures agreed as part of the SREP 30, and also the Wianamatta Regional Park Plan of Management. As requested in the RFI, the following additional mitigation measures are proposed:

A.2.3.1. Pre-clearing Surveys

Pre-clearance surveys will be conducted by an appropriately qualified ecologist within seven days prior to the commencement of construction works. The pre-clearance survey will involve the identification of potential habitat features such as trees with hollows, nests or decorticating bark, as well as bush rock and log piles. The pre-clearance survey will also include Cumberland Plain Land Snail searches. Any fauna encountered will be captured if possible and relocated to suitable habitat outside of the subject site or within the SMP/Regional Park.

Additionally, the pre-clearance surveys will also include searches for threatened flora listed under the BC Act and the EPBC Act. Furthermore, areas of weeds listed under the *NSW Biosecurity Act 2015* which require control will be identified.

A.2.3.2. Demarcating the Area of Clearing

Prior to any clearing being undertaken within the subject site, the edge of the vegetation to be cleared needs to be clearly delineated. Clearing of vegetation will be limited to these areas and must not exceed beyond the demarcated clearing boundary. Clearing limits can be marked with high visibility tape, temporary fencing, or other appropriate boundary markers. To avoid unnecessary damage to adjacent vegetation or inadvertent habitat removal, disturbance is to be restricted to the delineated area. No stockpiling of equipment, soils, or machinery will occur beyond the boundary. Stockpiling of materials must be done so in allocated areas within the clearing boundary and must not be placed within environmentally sensitive areas.

All no-go/exclusion zones such as the surrounding conservation areas are to be made known to all contractors working on the project. These no-go zones are to remain untouched and not impacted for the duration of construction. Highly visible temporary fencing is to be erected to fully delineate these zones. Furthermore, all workers within the project are to be made aware that no clearing or parking of plant machinery during periods of no work is permitted beyond the subject site.

A.2.3.3. Tree Protection Fencing

Any trees that are to be retained within the subject site (as identified by an Arborist) are to have protective barrier fencing placed around trunks and critical root zones to protect from any underground works. Any underground works are not to sever tree roots unless approved by an Arborist. All protection measures are to be implemented prior to construction and are to be in accordance with Australian Standards 4970-2009.

Any trees that require directional felling are to be demarcated to avoid damage to environmentally protected areas and surrounding habitat. No access tracks and haul roads are to be prepared under or within the extent of the canopy of trees identified as a habitat item or a threatened species, except under the supervision of an ecologist or beneath trees that are to be retained (under direction of an arborist). The parking of cars or plant machinery is also prohibited, unless under direction of arborist/ecologist, within areas of protected trees or

threatened species. Additionally, the excavation or placement of fill under such trees is also prohibited unless advised by an ecologist.

A.2.3.4. Hygiene Protocols

To avoid the spread of Chytrid fungus, *Phytophthora cinnamomi* and other soil borne pathogens appropriate hygiene procedures and guidelines described in Best Practice Management Guidelines for *Phytophthora cinnamomi* within the Sydney Metropolitan Catchment Management Authority Area (Botanic Gardens Trust 2008) will be followed.

All machinery, clothing (such as boots and gloves), and tools, which will have contact with soil will be disinfected with a spray prior to entering and leaving the site.

Recommended disinfectant products include:

- Non-corrosive disinfectants including Coolacide®, Phytoclean®, or Biogram® which can be for cleaning footwear, tools, tyres, machinery and other items in contact with soil; and
- 70% Methylated spirits solution in a spray bottle which is suitable for personal use (clothing).

A.2.3.5. Bush rock, Log and Felled Tree Reuse

Suitable habitat items such as bush rock, logs and felled trees will be salvaged and re-used as part of the landscaping plan or translocated to surrounding vegetation within the Regional Park to further improve available habitat.

Suitable salvage items will be clearly marked with an 'S' painted with pink spray paint by an ecologist once trees have been felled. Trees will not be marked prior as the salvage suitability of each tree depends on its condition once it is felled (e.g. some trees shatter when hitting the ground and become unsuitable). Suitable logs and bush-rock will be relocated in the Regional Park.

A.2.3.6. Clearing Supervision

The clearing of all vegetation, including both habitat and non-habitat items, will be undertaken under supervision by a suitably qualified ecologist. A two stage clearing procedure will be adhered to, whereby the area around each habitat item is cleared initially, leaving the habitat feature isolated. The isolated habitat items should then be left overnight prior to felling. Upon felling, the operator is required to agitate any trees containing hollows to allow resident fauna to vacate and the use of a grabbing mechanism may be applied to the lowering of trees. Once felled, the acting ecologist will thoroughly inspect each habitat item. The acting ecologist will be present for the duration of clearing to rescue and relocate resident fauna.

A.2.3.7. Stop Works Procedures

Prior to works being undertaken, all personnel working on the project will need to be inducted in regard to the potential threatened species occurring on the subject site. If any unexpected threatened species are encountered, the following procedures need to occur:

- Stop any work in the immediate area of the threatened species, habitat or population;

- Notify the Environmental/Site Manager, who will subsequently organise an ecologist to undertake a site inspection (if required) and provide advise of further actions;
- If no significant impact is likely, recommence project works;
- If significant impact is likely then obtain approvals, licences or permits as required;
- Once approval is obtained works can recommence; and
- Ensure all personnel are informed of the additional encountered species.

In the event of unexpected fauna encounters when an ecologist is not present on site, fauna encountered should not be handled but encouraged to self-relocate where possible. In the event of unexpected fauna injury or trapping, advice should be sought from an ecologist on appropriate follow up procedures for the situation.

A.2.3.8. Artificial Lighting

Artificial light may have a negative affect on fauna and their habitat, as it can alter behaviour as well as availability of habitat and foraging resources. In consideration of the National Light Pollution Guidelines for Wildlife (Commonwealth of Australia 2020), the project has considered the following best practice lighting design for the installation of lighting around the basin and/or access routes:

- Start with natural darkness and only add light for specific purposes;
- Use adaptive light controls to manage light timing, intensity and colour;
- Only illuminate the area intended – keep light close to the ground, directed and shielded to avoid light spill;
- Use lowest intensity lighting appropriate for the task;
- Use non-reflective, dark coloured surfaces, as appropriate; and

Use lights with reduced or filtered blue, violet and ultra-violet wavelengths.

A.2.4. Vegetation Management Plan

A Vegetation Management Plan (VMP) will be prepared for the revegetation of areas disturbed during the construction of Regional Detention Basins C and V6, and is to be implemented in conjunction with the Landscape Plan.

The VMP will refer to the Wianamatta Regional Park Plan of Management (DEC (NSW), 2007), but will not replace this document. The VMP will be prepared in accordance with current guidelines, including those for riparian corridors on waterfront land, as developed by DPIE. The VMP can be prepared for submission to Council as a Condition of Consent, and must be approved before issue of Construction Certificate.

A.3. Conclusion

This addendum SIS has considered the impacts to biodiversity from the construction of Regional Detention Basins C and V6, located within the north west of the SMDS, including implementing the Stormwater

Management Plan. The amendments have resulted in a slight reduction in the clearing of Cumberland Plain Woodland, as outlined in **Table 1**. Nonetheless, the impacts on biodiversity are as predicted in the SIS, and no new TECs or threatened species will be impacted. No significant impact in terms of the EP&A Act are expected to occur.

The implementation of additional mitigation measures satisfy the requirements of Council's RFI.

A.4. References

ADW Johnson Pty Limited. 2021. Stormwater Management Plan: Basin C and V6 for Villages 3C and 6 of Jordan Springs.

Botanic Gardens Trust. 2008. Best Practice Management Guidelines for *Phytophthora cinnamomi* within the Sydney Metropolitan Catchment Management Authority Area. Botanic Gardens Trust Royal Botanic Gardens Sydney, Sydney.

Commonwealth of Australia. 2020. National Light Pollution Guidelines for Wildlife Including Marine Turtles, Seabirds and Migratory Shorebirds.

Cumberland Ecology. 2019. Regional Detention Basin C and Regional Detention Basin V6: Species Impact Statement. Epping, NSW.

APPENDIX B :

NPWS Letter



Dael Palte
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Dear Dael

DA19/08110– Drainage Basin C & V6 Haul Roads

The purpose of this letter is to provide Maryland Development Company Pty Ltd (MDC) landowners consent to use trails within current and future regional park to facilitate the construction of Basin C & V6 (See Appendix A).

This approval is subject to the following:

- NPWS are to be consulted for any additional works to be undertaken on the haul road and appropriate revegetation is to occur if required
- Consultation with NPWS is required if trails are proposed to be widened
- Any ecological impacts associated with the use or widening of trails is to be appropriately managed under the oversight of an ecologist / arborist
- Gate management protocols are to be implemented during construction works to ensure macrofauna are unable to escape from the site
- Any damage incurred as a result of track movements must be remediated at the expense of MDC to the satisfaction of NPWS

NPWS also acknowledge that ongoing access to the basins for maintenance purposes post-construction will be facilitated as required.

Should you require anything further please contact Luke Mitchell on 0429 168 068 or luke.mitchell@environment.nsw.gov.au.

01/03/2021

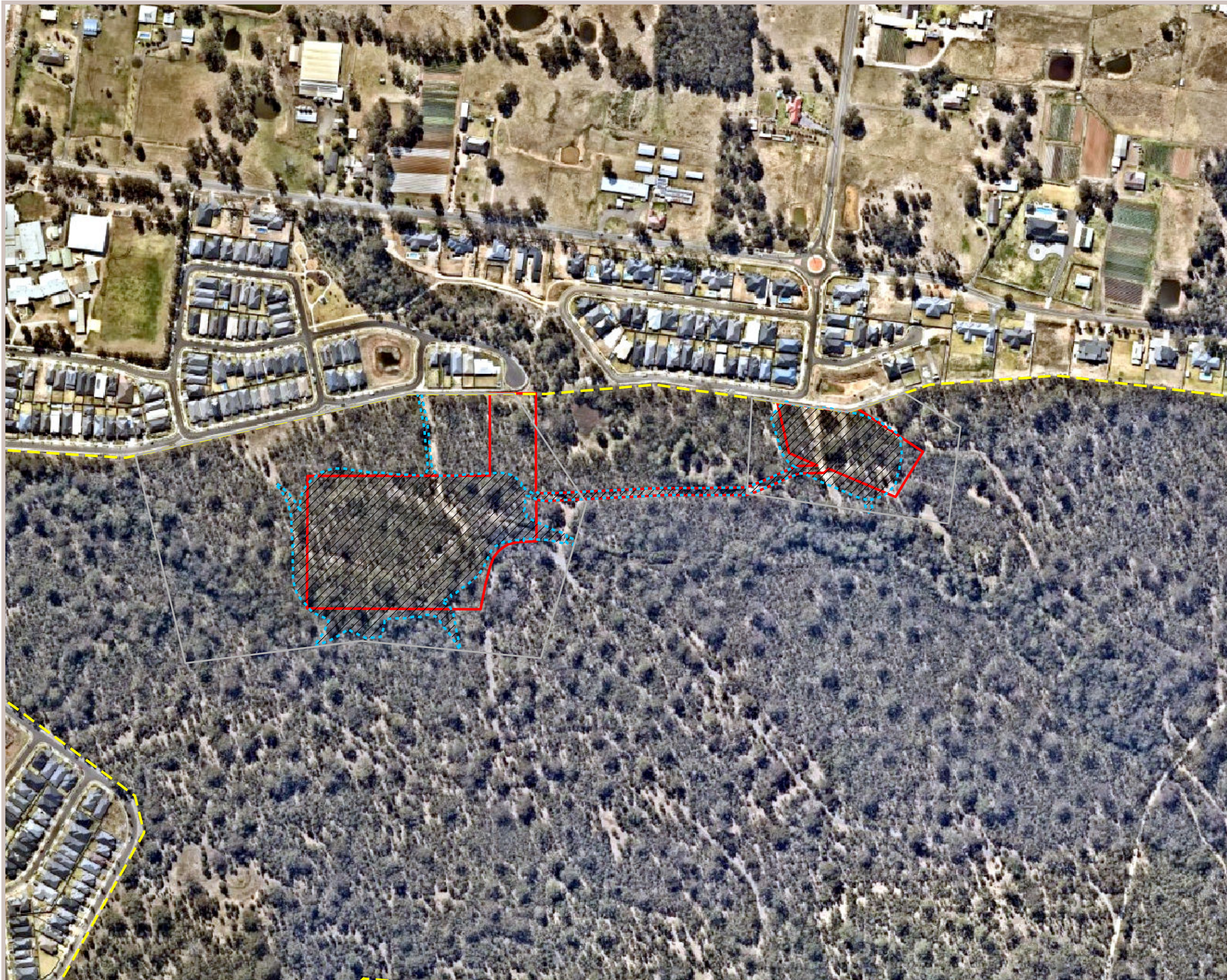
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Appendix A



FIGURES



Legend

- Subject Site - SIS (Cumberland Ecology, 2019)
- Study Area
- Lot Boundaries
- Amended Subject Site – Addendum (Cumberland Ecology 2021)

Image Source:
 Image © Nearmap (2019)
 Dated: 27/10/2019

Spatial Services,
 NSW Department of Finance and Services
 (2017)

Coordinate System: MGA Zone 56 (GDA 94)



Figure 1. Location of the subject site



Figure 2. Vegetation of the subject site