

6 June 2025

Ian Stendara
A/Coordinator, Strategic Planning
Liverpool City Council
52 Scott Street
Liverpool, NSW, 2170

Re: RE: Ecological Assessment Georges Cove Village, 146 Newbridge Road, Moorebank (Lot 1 DP 1246745)

Dear Ian,

1 Introduction

EMM Consulting Pty Limited has been engaged to prepare an Ecological Assessment for the Planning Proposal to amend the Liverpool Local Environmental Plan (LEP) 2008 to permit the land use of a supermarket with a maximum gross floor area of 4,000 m² at Lot 1 DP 1246745, 146 Newbridge Road Moorebank ('Georges Cove Village').

EMM has provided the following ecological reports in support of the Georges Cove Development, and the Planning Proposal:

- *Ecological Assessment for the Moorebank Cover Residential Development*, prepared by EMM in 2016 for Mirvac Homes (NSW). It is noted that whilst the Village is considered to be part of this broader development, the eastern portion of Lot 1 was not included in the 2016 EMM assessment.
- *Georges Cove Village Planning Proposal – Updated Ecological Impact Assessment*, prepared by EMM, 29 August 2024, to address Condition 1 of the Gateway Determination.

This assessment updates our August 2024 assessment, in line with comments received from the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) (dated 17/12/24) and provides further context to the ecological condition on the site.

1.1 The planning proposal, future land use and site context

This assessment addresses Lot 1 DP 1246745, 146 Newbridge Road Moorebank (the Site), see Figure 1.1.

The proposed end use of the Lot is for the construction of a supermarket, light industrial uses and affiliated car parking to support the new Georges Cove Marina Development and other surrounding residents. The Architectural plans provided by Rothe Lowman (20/12/22) for the proposed development are included in Figure 1.2.

The current zoning for the site is currently E3 Productivity Support. Residential town-house dwellings in the Moorebank Cove Development to the south are zoned R3. An adjacent area of native vegetation to the west is zoned C2 Environmental Conservation, as shown in Figure 1.3.

1.2 Planning context

Planning Proposal (PP-2024-963) for the site, has been endorsed by Liverpool City Council and was referred to the Department of Planning, Housing and Infrastructure (the Department) for Gateway determination. Gateway Determination (Department Ref: PP-2024-963) provided that the planning proposal should proceed, subject to a number of conditions.

On 30 October 2024, the Planning Proposal was referred to the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) for Public Authority Consultation.

The Biodiversity, Conservation and Science group (BCS), within the DCCEEW conducted a review of the planning proposal and provided comments (RZ-9/2017) on 17 December 2024. In their response, the BCS requested that the ecological impact assessment supporting the Planning Proposal address direct and indirect impacts on the Threatened Ecological Community – Castlereagh Ironbark Forest, and made the following recommendations:

- the ecological assessment is updated to clarify the biodiversity values of the site, noting that vegetation in the eastern part of Lot 1 has been mapped as the Threatened Ecological Community (TEC) Castlereagh Ironbark Forest and the 2016 EMM report only refers to the western part of Lot 1.
- potential direct and indirect impacts to threatened species or threatened ecological communities are avoided or minimised, and any unavoidable impacts should be offset in accordance with the Biodiversity Offset Scheme.
- the Planning Proposal includes measure to mitigate indirect impacts on the C2 Environmental Conservation land to the west of the site which is also mapped as the TEC Castlereagh Ironbark Forest and contains threatened species records. Possible indirect impacts include shading, runoff, littering and trampling.

1.3 Assessment aims

This assessment has been prepared to address the comments made by the BCS, and aims:

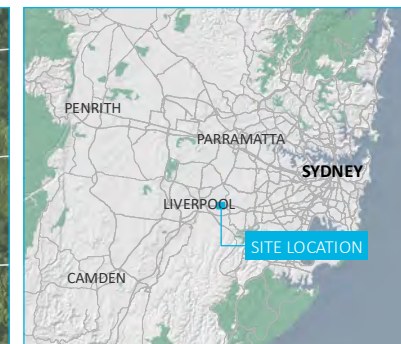
- to verify the vegetation types and their extent within the site
- to consider the fauna habitat, including any hollow bearing trees
- to survey for threatened flora and their habitat
- to assess potential direct, indirect and proscribed impacts of the proposal, including further assessment requirements under the NSW Biodiversity Offset Scheme (BOS).

Investigation into the clearing of any previously present native vegetation or Threatened Ecological Communities (TECs) is outside of the scope of this assessment.

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Source: EMM (2025); ABS (2021); DCSSS (2023); GA (2009); MetroMap (2025)



KEY

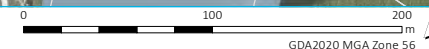
- Site boundary
- Cadastral boundary
- Named waterbody

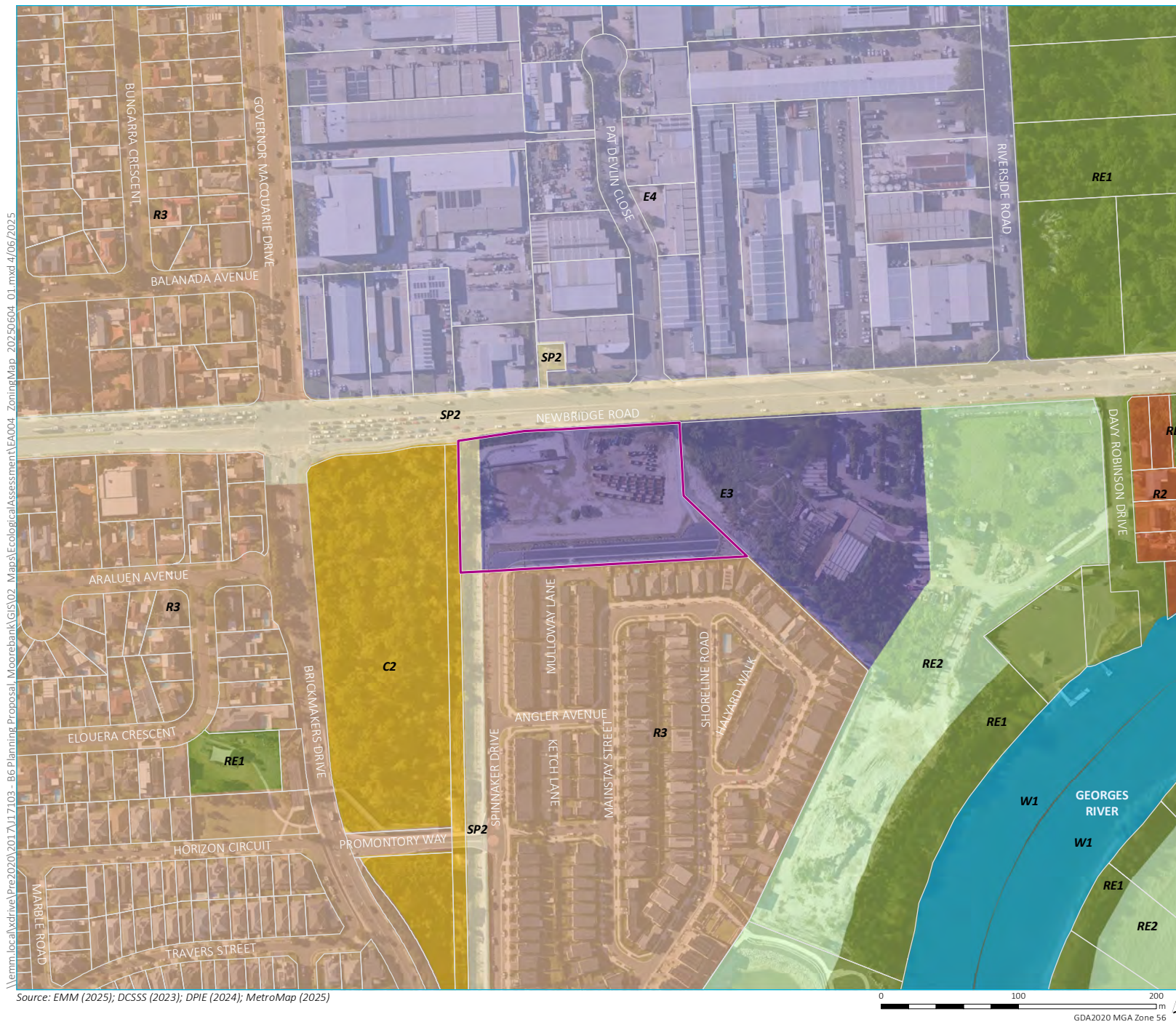
INSET KEY

- Major road
- NPWS reserve
- State forest

Site location

Georges Cove Village
Ecological Assessment
Figure 1.1





2 Methods

2.1 Desktop assessment

A desktop assessment was undertaken of available information, including:

- review of previous ecological reports (EMM 2016, EMM 2024 & Total Earth Care 2011)
- a search of the NSW Wildlife Atlas (BioNet), undertaken on 3 June 2025
- a search for the Australian Government's EPBC Protected Matters Search, undertaken on 3 June 2025 with a 5-km buffer
- a search of the Bureau of Meteorology's, Groundwater Dependent Ecosystem Atlas, undertaken on 4 June 2025
- a review of BioNet (Vegetation Classification) for PCT 3448.

2.2 Fieldwork

A survey of the site was undertaken on 28 May 2025 by EMM ecologist David Brennan for approximately 2 hours during daylight hours.

2.3 Assumptions and limitations

- At the time of the site inspection, the Lot was in active use by Benedict Industries, who utilise the site as a recycling depot. Heavy trucks were observed using the site. This did not impact significantly on the site inspection, which was largely undertaken in footpath areas away from actively used areas, which were clear of vegetation or other long-term potential habitat.
- Our field survey was undertaken largely within the boundaries of the site, including publicly accessible land along Newbridge Road and the newly built pedestrian overpass bridge over the adjacent vegetation to the west of the site. The drainage channel was too wide to be easily accessed by foot, and survey along this boundary was undertaken from the eastern bank of the drainage channel only.
- As the adjacent lot to the west was not accessed, no flora survey /plot data was collected, and we can only provide general commentary on the nature and condition of this vegetation and identification of the PCT and TEC association. Tree locations in this area (i.e. west of the drainage channel) have been estimated based on satellite imagery.

3 Results

3.1 Site condition - current

At the time of inspection (28 May 2025) the site was currently in use as a recycling depot with minimal remnant or remaining vegetation and minimal habitat for native threatened species observed, as shown in Figure 3.1.

An urban drainage line exists to the north and west of site, with the broader development separated from the adjacent C2 zoned land to the west (containing native vegetation), by a drainage channel approximately 10–15 m in width, a newly built access road and a gabion wall that steps down from the development to the ground level. Newly constructed roads, footpaths and a rain garden in the north-east corner of the site were observed.

The drainage channel to the north of the rain garden, was comprised of the native rush *Typha orientalis* (Broadleaf Cumbungi) and exotic species including *Erythrina* sp. (Coral tree) and *Cardiospermum grandiflorum* (Balloon vine). Vegetation along the eastern portion of the drainage channel included one small re-growing *Casuarina glauca* (Swamp she oak) but was otherwise largely exotic annual herbaceous weeds. Along the western edge of the drainage channel, the vegetation graded away from aquatic species (i.e. *Typha*) into terrestrial species on the top of bank. Notable native tree / canopy species included *Eucalyptus fibrosa* (broad-leaved ironbark) and *Melaleuca decora*. Balloon vine, the exotic vine species was observed growing into the canopy. All vegetation occurring within the site, was not mapped in the State Vegetation Type Mapping (DECCW 2024).

In the north-eastern corner of the site, all trees (exotic and native) were located outside of the site boundary within the Newbridge Road easement, noting that tree canopies overhang the site.

Georges River is approximately 300 m to the east of the site.

3.1.1 Native vegetation to the west of the site

The vegetation to the west of the site in the C2 zoned land, is identified within the State Vegetation Type Mapping (DECCW 2024) as belonging to PCT 3448 Castlereagh Ironbark Forest. PCT 3448 is primarily associated with the Threatened Ecological Community (TEC), *Cooks River/Castlereagh Ironbark of the Sydney Basin Bioregion*, listed as Endangered under the NSW *Biodiversity Conservation Act 2016* (BC Act) and as Critically Endangered under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

PCT 3448 can also be associated with the BC Act listed *Shale Gravel Transition Forest in the Sydney Basin Bioregion* and EPBC listed *Cumberland Plain Shale Woodland and Shale Gravel Transition Forest*, however this TEC is association is considered less likely due to its location within the Sydney basin, as well as the dominance of *Eucalyptus fibrosa* (Broad-leaved Ironbark) and *Melaleuca decora* in the canopy. No plot data was available to confirm this PCT or TEC association.

This patch of native vegetation is outside of the site and disconnected to the next nearest patches to the north and east, by a distance of approximately 500 m, with the nearest vegetation being located across Newbridge Road and along the shores of the Georges River. Whilst somewhat weedy, with *Lantana camara* (Lantana), *Cardiospermum grandiflorum* (Balloon Vine) and *Erythrina* sp. (Coral Tree), the vegetation is overall in good to moderate condition.

Several photos of the site and adjacent vegetation are included in Appendix A.

3.2 Threatened species

A BioNet database search undertaken on 3 June 2025, did not return any records of threatened species onsite, although several threatened species were recorded within the adjacent patch of native vegetation, see Figure 3.1, included:

Fauna (vertebrates):

- Grey-headed flying fox (*Pteropus poliocephalus*), listed as Vulnerable under BC Act and EPBC Act
- Yellow-bellied Sheathtail bat (*Saccolaimus flaviventris*), listed as Vulnerable under BC Act
- Little Eagle (*Hieraaetus morphnoides*), listed as Vulnerable under BC Act.

Invertebrates:

- Cumberland Plain Land Snail (*Meridolum corneovirens*), listed as Endangered under BC Act.

Flora (plants):

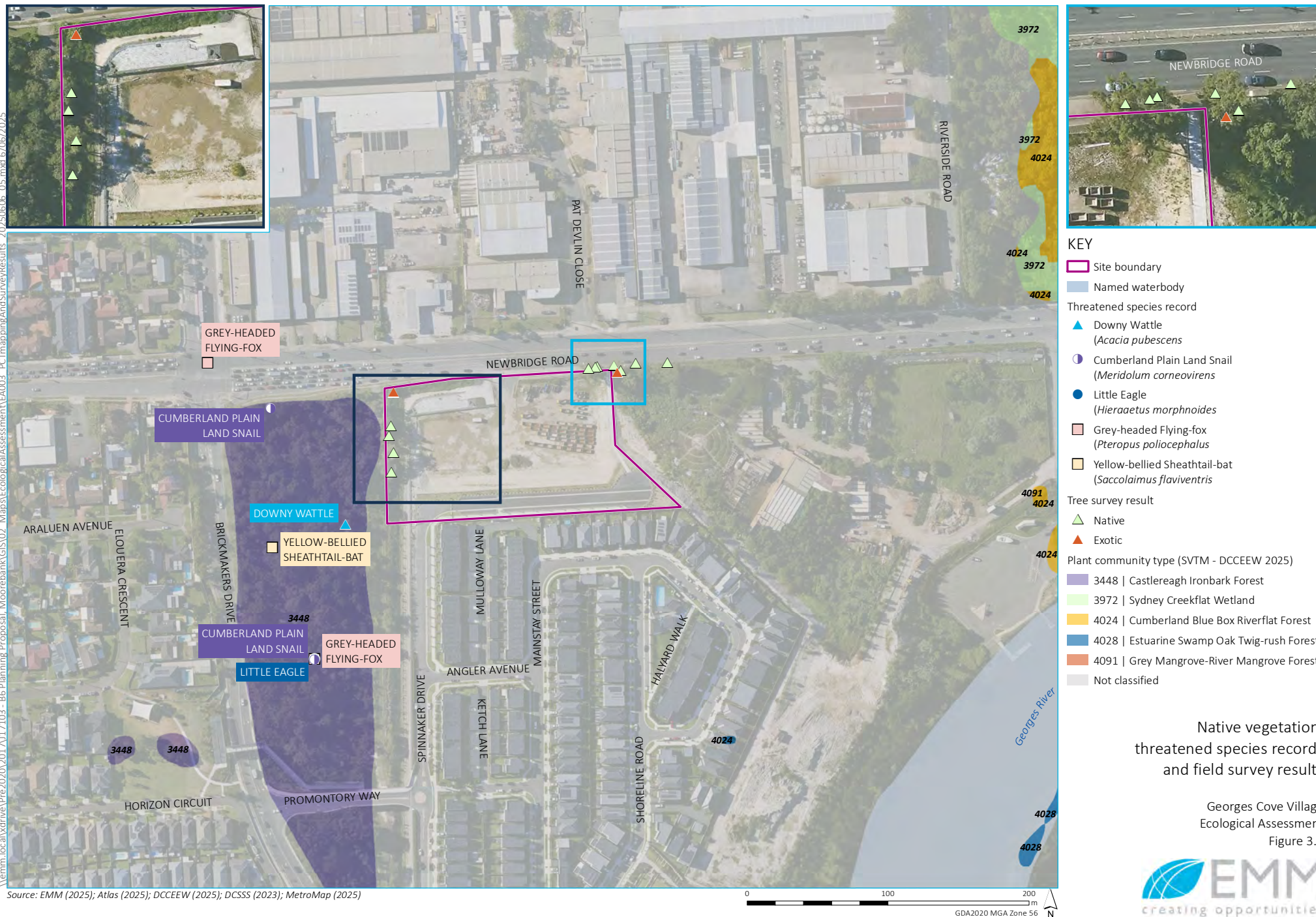
- *Acacia pubescens* (Downy Wattle), listed as Vulnerable under BC Act and EPBC Act.

A likelihood of occurrence was undertaken for threatened species and communities records identified from the BioNet and EPBC Protected Matters Search, see Appendix B. Two further species were identified as potentially being present on the site, based on potential habitat being present:

- Green and Golden Bell Frog (*Litoria aurea*), listed as Endangered under BC Act and Vulnerable under the EPBC Act
- *Persicaria elatior* (Tall Knotweed), listed as Vulnerable under BC Act and EPBC Act.

As the site contains minimal vegetation and limited potential habitat values (aside from the drainage channel in the north-east and western edge of the site) all other threatened species were considered to be absent from the site.

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Source: EMM (2025); Atlas (2025); DCCEEW (2025); DCSSS (2023); MetroMap (2025)

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4 Ecological impact assessment

4.1 Impact assessment under the NSW Biodiversity Conservation Act (BC Act) and the NSW Biodiversity Assessment Method (BAM)

Under the NSW BC Act, proposed developments are required to be assessed for their proposed and potential impact on biodiversity, under the NSW Biodiversity Assessment Method (BAM). The BAM provides the framework for this assessment and requires that development proposals apply the offset hierarchy, i.e. that they must first avoid and minimise direct, indirect and prescribed impacts on biodiversity. Any residual impacts require offsetting.

An assessment of the proposals direct, indirect and prescribed impacts on biodiversity is provided below.

4.1.1 Direct and Indirect impacts

Potential direct and indirect impact of the proposed development have been identified in Table 4.1.

Table 4.1 Potential for direct and indirect impacts

Type of impact	Impact potential
Vegetation clearing	The proposed development would not require the removal of any native or exotic vegetation. Whilst it is not expected to be required, but there is the potential for some of the native trees in the Newbridge Road easement north-east of the site, to require trimming to allow for the development. This is considered unlikely and is considered to have minimal impact. The vegetation in the drainage channel is not expected to require any clearing as all built features (rain garden, road and gabion wall) are all installed. No native vegetation communities or woody vegetation of any kind are likely to be directly impacted by the development.
Surface water impacts	The site contains an existing drainage channel, with a newly constructed rain garden in the north-west of the site. For this reason, with the implementation of standard construction stormwater management measures, there is unlikely to be any surface water impacts on the adjacent vegetation.
Groundwater impacts	There are no aquatic groundwater dependent ecosystems (GDE) present within the site. The adjacent native vegetation in the adjacent C2 land has a low to moderate potential of being groundwater dependent, see Appendix D. As such, the proposed development is unlikely to have an impact on GDE.
Noise and vibration	Construction of the development would require excavation and the use of heavy machinery. The noise and vibration associated with construction may cause birds, including threatened species, to avoid the area surrounding the site during the construction phase. The site is not adjacent to any of the main threatened bird nesting areas identified in Department of Environment and Climate Change (2009) and is located in a disturbed area with fragmented native vegetation. The site will continue to experience traffic noise from Newbridge Road. The potential for substantial noise and vibration impacts on the nesting activity of threatened birds is low.
Human disturbance including littering and trampling	While the site is currently used as a recycling depot, the development would result in increased human activity. However, due to the layout of the site, with the conservation area separated by a drainage channel that is difficult to ford (being too wide to easily jump), and separated from the rest of the site by a sizable fence, it is considered unlikely that the proposed development (including the construction and utilisation of a supermarket) would lead to physical disturbance of vegetation and associated habitat adjacent to the site. Given that the development is part of an urbanised landscape, it is unlikely that the operation of the project would result in substantial trampling or other disturbance to adjacent vegetation.
Shading	The proposed development is not considered to increase the shade on the adjacent vegetation community to the west of the site, as there is a buffer of 20 m between the vegetation and the development (drainage channel and the road). Some shading to adjacent canopy trees may occur.

4.1.2 Prescribed impacts

Prescribed impacts are identified under Section 6.1 of the Biodiversity Conservation Regulation 2017. An assessment against these impacts is included in Table 4.2.

Table 4.2 Consideration of the Development impact on prescribed impacts, under Section 6.1 of the Biodiversity Conservation Regulation 2017

Prescribed impacts	Comment
(a) the impacts of development on the following habitat of threatened species or ecological communities: (i) karst, caves, crevices, cliffs and other geological features of significance, (ii) rocks, (iii) human made structures, (iv) non-native vegetation,	(i) None present onsite (ii) No natural rock is present onsite (iii) There are no human made structures present onsite which are being removed i.e. the newly constructed detention basin/rain garden may form habitat but is not being removed for the proposed development (iv) Minimal non-native vegetation present, aside from weedy channel north of the rain-garden is present. No impacts are expected on these areas as all built features (rain garden, road and gabion wall) are already installed.
(b) the impacts of development on the connectivity of different areas of habitat of threatened species that facilitates the movement of those species across their range,	No native vegetation is to be removed as part of the proposed development, and as such no habitat connectivity is being impacted.
(c) the impacts of development on movement of threatened species that maintains their lifecycle,	The proposed development is in a highly urbanised area. The development of this supermarket is not expected to impact on the movement of any species.
(d) the impacts of development on water quality, water bodies and hydrological processes that sustain threatened species and threatened ecological communities (including from subsidence or upsidence resulting from underground mining or other development),	The impact of the development is not expected to have any significant further impacts on the water quality at the site. It is expected that appropriate water treatment controls will be put in place during the construction.
(e) the impacts of wind turbine strikes on protected animals,	Not applicable.
(f) the impacts of vehicle strikes on threatened species of animals or on animals that are part of a threatened ecological community.	The proposed development is in a highly urbanised area. The development of this supermarket is not expected to increase the risk of vehicle strike on animals.

4.2 Assessment for entry into the NSW Biodiversity Offset Scheme (BOS)

In NSW, local development is required to be assessed for entry into the NSW Biodiversity Offset Scheme (BOS). Entry into the BOS can be triggered by either exceeding the area clearing thresholds or impacting on land identified on the Biodiversity Values map (BV map). Where neither of these thresholds are exceeded, a test of significance may be required. Where proposals impact on land with mapped Biodiversity Values, the offset scheme is automatically triggered.

As the site contains areas mapped on the BV map, as shown in Figure 4.1, the development triggers entry into the NSW Biodiversity Offset Scheme. This is understood to be applicable at the Development Application stage of the assessment (i.e. post Gateway planning process). A Biodiversity Values Map and Threshold Report (BMAT Report) is attached as Appendix C.

Further discussion around the requirement for further assessment is provided below in Section 5.3.



- KEY**
- Site boundary
 - Cadastral boundary
 - Named waterbody
- Biodiversity values map**
- Coastal Management Act - wetlands
 - Threatened species or communities with potential for serious and irreversible impacts

Biodiversity values map

Georges Cove Village
Ecological Assessment
Figure 4.1

4.3 Significance of impacts on species and TECs listed under the BC Act

Whilst the proposal already triggers entry into the BOS, we conservatively undertook a test of significance to assess the potential impacts (direct and indirect) of the proposal on threatened entities listed under the BC Act.

The test of significance was prepared in accordance with Section 7.3 of the BC Act, and the *Threatened Species Test of Significance Guidelines* (OEH 2018), and is shown in Table 4.3.

As the project would not have any direct impact on habitat for threatened species and indirect impacts would be minor, a single impact significance assessment has been undertaken for all threatened species listed under the BC Act, recorded in the adjacent C2 zoned lands, including:

Fauna (animals):

- Grey-headed flying fox (*Pteropus poliocephalus*), listed as Vulnerable under BC Act
- Yellow-bellied Sheathtail bat (*Saccolaimus flaviventris*), listed as Vulnerable under BC Act
- Little Eagle (*Hieraaetus morphnoides*), listed as Vulnerable under BC Act
- Green and Golden Bell Frog (*Litoria aurea*), listed as Endangered under BC Act

Invertebrates:

- Cumberland Plain Land Snail (*Meridolum corneovirens*), listed as Endangered under BC Act

Flora (plants):

- *Acacia pubescens* (Downy Wattle), listed as Vulnerable under BC Act
- *Persicaria elatior* (Tall Knotweed), listed as Vulnerable under BC Act

Ecological communities:

- *Cooks River/Castlereagh Ironbark of the Sydney Basin Bioregion*, listed as Endangered under the BC Act

Table 4.3 Five part test of Significance (Section 7.3 of the BC Act)

Test	Discussion
<i>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,</i>	No threatened species habitat will be cleared. No threatened ecological community will be removed. There may be construction and operation phase noise, vibration and human disturbance to small areas of potential habitat for threatened species immediately adjacent to the site. There will not be any physical disturbance on the western side of the channel. The potential habitat for these species potentially affected is in a generally modified landscape and habitat potentially affected is considered to be of at most moderate importance to the possible local occurrence of these species. None of these species are likely to have their life cycles significantly affected by the development.
<i>d.in relation to the habitat of a threatened species or ecological community:</i> <i>i. the extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and</i>	No habitat would be removed or modified for the development.

Test	Discussion
<i>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</i>	The habitat surrounding the site is already fragmented. The development will not clear native vegetation or otherwise fragment or isolate habitat.
<i>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,</i>	No habitat will be removed as part of the development. No habitat will be further fragmented, modified or isolated.
<i>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),</i>	No areas of outstanding biodiversity value are present in the disturbance area or adjacent areas. The development is unlikely to have an adverse effect on any declared area of outstanding biodiversity value.
<i>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.</i>	Key threatening processes which are of relevance to the species in the locality of the site include: • clearing of native vegetation • invasion and establishment of exotic vines and scramblers • invasion of native plant communities by exotic perennial grasses. No native vegetation would be cleared for the development. Machinery will be cleaned between sites to reduce the chance of spreading weeds or any diseases. The proposed works are not considered likely to contribute to any threatening processes.
Conclusion	The project is unlikely to cause a significant impact on threatened species or threatened ecological community listed under the BC Act.

4.4 Significance of impacts on species and TECs listed under the EPBC Act

Assessments of significance for Matters of National Environmental Significance (MNES) have been undertaken in accordance with the 'significant impact criteria' outlined in the *EPBC Act Significant Impact Guidelines 1.1*. Matters of National Environmental Significance (DoE 2013a). The criteria are intended to assist in determining whether the impacts of any proposed actions on a MNES are likely to be significant. For each EPBC listing category (i.e. Vulnerable or Endangered), specific impact criteria prompts are used to guide the assessment.

An impact significance assessment has been undertaken for the *Acacia pubescens* (Downy Wattle), Green and Golden Bell Frog (*Litoria aurea*), Grey-headed Flying Fox (*Pteropus poliocephalus*) and *Persicaria elatior* (Tall Knotweed) which are listed as Vulnerable species under the EPBC Act. See Table 4.4.

Table 4.4 EPBC Act assessment of impact significance on species identified as Vulnerable *Acacia pubescens* (Downy Wattle), Green and Golden Bell Frog (*Litoria aurea*), Grey-headed Flying Fox (*Pteropus poliocephalus*) and *Persicaria elatior* (Tall Knotweed)

Test	Discussion
Would the action lead to a long-term decrease in the size of an important population of a species?	The species are not known to occur within the site, however it is possible that the species may occupy vegetation adjacent to the site or the drainage channel. The disturbance that would occur as a result of the proposed development is unlikely to change the carrying capacity of the locality. As the species are unlikely to shelter within the site and measures would be implemented to reduce the risk of indirect impacts, the proposed development is unlikely to lead to a reduction in the population of either species.
Would the action reduce the area of occupancy of an important population?	No removal of any potential habitat is expected as a result of the action. Indirect impacts to adjacent moderate potential habitat would be minor. Therefore, the development is unlikely to reduce the area of occupancy of the species.
Would the action fragment an existing important population into two or more populations?	The habitat surrounding the site is already fragmented. The development will not clear native vegetation or otherwise fragment or isolate habitat.
Would the action adversely affect habitat critical to the survival of a species?	No critical habitat has been listed for these species. The chiefly marginal, fragmented habitat that is found adjacent to the site is considered to be of only moderate importance to any local occurrence of this species.
Would the action disrupt the breeding cycle of an important population?	No habitat for the species would be cleared. There may be minor construction and operation phase noise, vibration and human disturbance to small areas of potential habitat for the species immediately adjacent to the site. The potential habitat for these species potentially affected is in a highly modified landscape and habitat potentially affected is considered to be of low importance to the possible local occurrence of the species. The species is not likely to have its life cycle significantly affected by the development.
Would the action 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 for the species which could be modified is considered to be of low importance to any local occurrence of this species due to its disturbed condition.
Would the action result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat?	Mitigation measures provided would minimise potential weed invasion into adjacent areas of habitat. Invasive weeds within the site would be controlled during the development. The action is unlikely to result in (further) invasive species becoming established in the species' habitat.

Test	Discussion
Would the action introduce disease that may cause the species to decline?	Mitigation measures provided would minimise the potential for the introduction of pathogens (e.g. plant pathogens) into adjacent areas of habitat and the introduction of disease is unlikely.
Would the action interfere with the recovery of the species?	There is unlikely to be a loss of habitat for the species and the action is unlikely to interfere with the recovery of the species.
Conclusion	The development is unlikely to cause a significant impact on the <i>Acacia pubescens</i> (Downy Wattle), Green and Golden Bell Frog (<i>Litoria aurea</i>), Grey-headed Flying Fox (<i>Pteropus poliocephalus</i>) and <i>Persicaria elatior</i> (Tall Knotweed), as defined under the EPBC Act.

An impact significance assessment has been undertaken for the *Cooks River/Castlereagh Ironbark (CRCI) of the Sydney Basin Bioregion*, listed as Critically Endangered under the EPBC Act and is provided in Table 4.5.

Table 4.5 **EPBC Act assessment of impact significance on Critically Endangered ecological community - Cooks River/Castlereagh Ironbark of the Sydney Basin Bioregion**

Test	Discussion
Would the action reduce the extent of the ecological community?	No loss of the ecological community is proposed.
Would the action fragment or increase fragmentation of an ecological community, for example by clearing vegetation for roads or transmission lines?	The ecological community is already fragmented and no further fragmentation of the community will result from the proposed action.
Would the action adversely affect habitat critical to the survival of an ecological community?	No critical habitat has been listed for this community. No direct impact on the ecological community is expected as a result of the proposed action.
Would the action modify or destroy abiotic (non-living) factors (such as water, nutrients, or soil) necessary for an ecological community's survival, including reduction of groundwater levels, or substantial alteration of surface water drainage patterns	Whilst minor impacts associated with increased run-off, impacts to the surface water may occur. The proposed action would not modify or destroy abiotic factors necessary to the survival of the ecological community.
Would the action cause a substantial change in the species composition of an occurrence of an ecological community, including causing a decline or loss of functionally important species, for example through regular burning or flora or fauna harvesting	The proposed action would not result in any loss or substantial change to the ecological community.

Test	Discussion
Would the action cause a substantial reduction in the quality or integrity of an occurrence of an ecological community, including, but not limited to: – assisting invasive species, that are harmful to the listed ecological community, to become established, or – causing regular mobilisation of fertilisers, herbicides or other chemicals or pollutants into the ecological community which kill or inhibit the growth of species in the ecological community?	Mitigation measures provided would minimise the potential for impact from: Invasive weeds, which would be controlled within the site during the development. The action is unlikely to result in invasive species becoming established in the species' habitat. No regular fertilisers, herbicides or other chemicals or pollutants are expected to enter the habitat as a result of the proposed actions.
Would the action interfere with the recovery of an ecological community?	No direct impact or loss of the community is proposed and the action is unlikely to interfere with the recovery of the ecological community.
Conclusion	The development is not likely to cause a significant impact on <i>Cooks River/Castlereagh Ironbark of the Sydney Basin Bioregion</i>, as defined under the EPBC Act.

5 Discussion

Further discussion regarding the results of our assessment and comments addressing BCS's commentary are provided below.

5.1 Significance of the proposal on threatened species or threatened ecological communities

As the proposed development will not have a direct impact on any native or exotic vegetation or habitat, the impacts of the proposed development will not lead to a significant impact on any threatened species or threatened ecological communities, listed under the BC Act or the EPBC Act.

Due to the drainage channel and road, which provide a 20 m buffer from the site to the adjacent conservation area, indirect impacts of the proposed development are not considered likely to have a significant impact on any threatened species or threatened ecological communities, listed under the BC Act or the EPBC Act.

5.2 Requirement for further assessment under the BOS

Typically, to address further assessment requirements under the BOS, a full Biodiversity Development Assessment Report (BDAR) would be required to support a Development Application. However, as the proposal does not require any native vegetation clearance, three alternative options are available:

- apply for a Biodiversity Development Assessment Report (BDAR) waiver
- apply for approval to prepare a streamlined (small-area) BDAR
- contact the BV Map team, for a review of the mapping noting that the mapped high-quality vegetation is no longer present. Removal of the BV mapping on the site, would negate the entry threshold into the BOS.

5.3 Management recommendations

Whilst the development will not have a significant impact on any threatened species or ecological community, in order to minimise any potential indirect impacts, the following measures are recommended before, during and post construction:

- install high visibility fencing and signage during the construction process to protect adjacent trees and areas of native vegetation
- install sediment fencing and signage during the construction process to prevent sediment from being deposited in areas outside of the construction zone and flowing into the drainage system
- install barriers and signage to discourage construction workers or shop users from entering adjacent native vegetation
- integrate native vegetation planting into landscaping where possible.

5.4 Addressing the BCS comments

Responses to the BCS comments (17 December 2024), are provided below:

- *the ecological assessment is updated to clarify the biodiversity values of the site, noting that vegetation in the eastern part of Lot 1 has been mapped as the Threatened Ecological Community (TEC) Castlereagh Ironbark Forest and the 2016 EMM report only refers to the western part of Lot 1.*

Our assessment covers all of Lot 1, including the eastern part.

- *potential direct and indirect impacts to threatened species or threatened ecological communities are avoided or minimised, and any unavoidable impacts should be offset in accordance with the Biodiversity Offset Scheme.*

Potential direct and indirect impacts are included in our assessment (See Section 4.1.1 and Table 4.1). Our assessment of the significance of potential impacts from the proposal concludes that no significant impacts to threatened species or ecological communities listed under the BC Act is likely. However, as identified in Section 4.2 the Biodiversity Offset Scheme (BOS) is triggered through the proposals impact on land identified on the Biodiversity Values map (DECCW 2025). Further assessment options are discussed in Section 5.2.

- *the Planning Proposal includes measure to mitigate indirect impacts on the C2 Environmental Conservation land to the west of the site which is also mapped as the TEC Castlereagh Ironbark Forest and contains threatened species records. Possible indirect impacts include shading, runoff, littering and trampling.*

Potential indirect impacts are included in our assessment including shading, runoff, littering and trampling (See Table 4.1). Whilst we concluded that no indirect impacts to threatened species or ecological communities is likely to be significant, Section 5.3 identifies management recommendations to be undertaken to mitigate potential indirect impacts on the adjacent C2 Conservation Lands before, during and post construction activities.

6 Conclusion

We conclude that as the proposed development does not require any native vegetation clearing or the removal of any threatened species habitat, and potential indirect impacts to the adjacent area of C2 zoned land with conservation values is buffered by the drainage channel and new road, no significant impact on any current Threatened species or Threatened Ecological Community under either the BC Act or EPBC Act is likely.

As the proposal is on land mapped on the Biodiversity Values map, entry into the BOS by the proposed development would be triggered and a BDAR or BDAR waiver would currently be required to be submitted with any Development Application. Alternatively, if the BV map is modified following a review by the BV map team, this requirement may not be necessary.

Yours sincerely

A handwritten signature in black ink, appearing to read 'David Brennan', with a long horizontal flourish extending to the right.

David Brennan
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7 Reference list

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Appendix A

Site photos

Plate A.1 Looking west, at the new raingarden, and drainage channel area (to the north of the Rain Garden) between Newbridge Road and the Rain garden



Plate A.2

Showing the drainage channel at the north-western corner of the site, before it begins to flow southwards. In frame is *Typha orientalis* (Broadleaf Cumbungi), *Erythrina* sp. (Coral Tree) and *Cardiospermum grandiflorum* (Balloon vine).



Plate A.3

Looking south along the western boundary of the site, showing the drainage line, the road and the gabion wall. Vegetation in frame is *Casuarina glauca* (Swamp she-oak) onsite, and the native vegetation, mapped as Cooks River Castlereagh Ironbark Forest on the adjacent Conservation (C2 zoned) land. Note that the weedy vine growing up the canopy trees is *Cardiospermum grandiflorum* (Balloon vine).



Plate A.4 Further south, looking south along the western boundary of the site, showing the drainage line, the road and the gabion wall.



Plate A.5 Looking in a westerly direction at the vegetation in the adjacent C2 zoned lot, from the footbridge on Promontory Way



Plate A.6

Looking northward across the new road towards the Benedict recycling depot from a position in the south of the site.



Plate A.7 Looking across the site, standing on the new footpath leading onto Newbridge Road in the north-east corner of the site.



Appendix B

Likelihood of Occurrence

Table B.1 **Likelihood of Occurrence - Fauna**

Type	Scientific Name	Common Name	Source	BC	EPBC	EPBC Mi/Marine	PMST/ BioNet Likelihood	BC Records (2025) – 10 km buffer	BC Records (2025) - adjacent site	Likelihood of Occurrence	Justification
Amphibians	<i>Heleioporus australiacus</i>	Giant Burrowing Frog, Eastern Owl Frog	PMST	V	V		Likely			Absent	Within the Sydney region, the Giant Burrowing Frog is restricted to Hawkesbury Sandstone.
Amphibians	<i>Mixophyes balbus</i>	Stuttering Frog, Southern Barred Frog (in Victoria)	PMST	E	V		May			Absent	There are only three known populations of Stuttering Frog in the Sydney Region, being the Watagans, the Gosford Area, and the Macquarie Pass National Park.
Amphibians	<i>Litoria aurea</i>	Green and Golden Bell Frog	PMST, BioNet	E	V		Known	25		Potential	The drainage channel in the west of the site, could provide potential habitat for this species. There are 25 Records within the 10km buffer, but no records of this species in this area or adjacent bushland.
Amphibians	<i>Pseudophryne australis</i>	Red-crowned Toadlet	BioNet	V	-		Known	4		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, no native vegetation or other potential habitat is present on site.
Bats	<i>Chalinolobus dwyeri</i>	Large-eared Pied Bat, Large Pied Bat	PMST, BioNet	E	E		Known	3		Absent	The species may fly over the site, however suitable roosting or foraging habitat are absent.
Bats	<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox	PMST, BioNet	V	V		Known	493	2	Absent	The species may fly over the site, however suitable roosting or foraging habitat are absent. The adjacent patch of bushland has records of this species onsite.
Bats	<i>Saccolaimus flaviventris</i>	Yellow-bellied Sheathtail-bat	BioNet	V	-		Known	16	1	Absent	The species may fly over the site, however suitable roosting or foraging habitat are absent.
Bats	<i>Micronomus norfolkensis</i>	Eastern Coastal Free-tailed Bat	BioNet	V	-		Known	10		Absent	The species may fly over the site, however suitable roosting or foraging habitat are absent.

Type	Scientific Name	Common Name	Source	BC	EPBC	EPBC Mi/Marine	PMST/ BioNet Likelihood	BC Records (2025) – 10 km buffer	BC Records (2025) - adjacent site	Likelihood of Occurrence	Justification
Bats	<i>Falsistrellus tasmaniensis</i>	Eastern False Pipistrelle	BioNet	V	-		Known	26		Absent	The species may fly over the site, however suitable roosting or foraging habitat are absent.
Bats	<i>Myotis macropus</i>	Southern Myotis	BioNet	V	-		Known	30		Absent	The species may fly over the site, however suitable roosting or foraging habitat are absent.
Bats	<i>Scoteanax rueppellii</i>	Greater Broad-nosed Bat	BioNet	V	-		Known	26		Absent	The species may fly over the site, however suitable roosting or foraging habitat are absent.
Bats	<i>Miniopterus australis</i>	Little Bent-winged Bat	BioNet	V	-		Known	8		Absent	The species may fly over the site, however suitable roosting or foraging habitat are absent.
Bats	<i>Miniopterus orianae oceanensis</i>	Large Bent-winged Bat	BioNet	V	-		Known	30		Absent	The species may fly over the site, however suitable roosting or foraging habitat are absent.
Birds	<i>Anthochaera phrygia</i>	Regent Honeyeater	PMST, BioNet	CE	CE		Known	6		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Lathamus discolor</i>	Swift Parrot	PMST, BioNet	E	CE	Mi; Marine	Known	16		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Neophema chrysogaster</i>	Orange-bellied Parrot	PMST	CE	CE	Marine	May			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Calidris ferruginea</i>	Curlew Sandpiper	PMST, BioNet	CE	CE	Mi; Marine	May	1		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.

Type	Scientific Name	Common Name	Source	BC	EPBC	EPBC Mi/Marine	PMST/ BioNet Likelihood	BC Records (2025) – 10 km buffer	BC Records (2025) - adjacent site	Likelihood of Occurrence	Justification
Birds	<i>Numenius madagascariensis</i>	Eastern Curlew, Far Eastern Curlew	PMST	CE	CE	Mi: Marine	Likely			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Callocephalon fimbriatum</i>	Gang-gang Cockatoo	PMST, BioNet	E	E		Known	1		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Macronectes giganteus</i>	Southern Giant-Petrel, Southern Giant Petrel	PMST	E	E	Mi; Marine	May			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Dasyornis brachypterus</i>	Eastern Bristlebird	PMST	E	E		May			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Tringa nebularia</i>	Common Greenshank, Greenshank	PMST, BioNet	E	E	Mi; Marine	Known	2		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Melanodryas cucullata cucullata</i>	South-eastern Hooded Robin, Hooded Robin (south-eastern)	PMST	E	E		Likely			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Limosa lapponica baueri</i>	Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit	PMST	-	V		May			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.

Type	Scientific Name	Common Name	Source	BC	EPBC	EPBC Mi/Marine	PMST/ BioNet Likelihood	BC Records (2025) – 10 km buffer	BC Records (2025) - adjacent site	Likelihood of Occurrence	Justification
Birds	<i>Botaurus poiciloptilus</i>	Australasian Bittern	PMST, BioNet	E	E		Known	1		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Rostratula australis</i>	Australian Painted Snipe	PMST	E	E	Marine	Known			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Diomedea sanfordi</i>	Northern Royal Albatross	PMST	-	E	Mi; Marine	May			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Erythrotriorch is radiatus</i>	Red Goshawk	PMST	E	E		May			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Thalassarche eremita</i>	Chatham Albatross	PMST	-	E	Mi; Marine	May			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Climacteris picumnus victoriae</i>	Brown Treecreeper (south-eastern)	PMST	V	V		Likely			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Neophema chrysostoma</i>	Blue-winged Parrot	PMST	V	V		May			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.

Type	Scientific Name	Common Name	Source	BC	EPBC	EPBC Mi/Marine	PMST/ BioNet Likelihood	BC Records (2025) – 10 km buffer	BC Records (2025) - adjacent site	Likelihood of Occurrence	Justification
Birds	<i>Pycnoptilus floccosus</i>	Pilotbird	PMST	V	V		Likely			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Aphelocephala leucopsis</i>	Southern Whiteface	PMST	V	V		May			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Macronectes halli</i>	Northern Giant Petrel	PMST	V	V	Mi; Marine	Likely			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Falco hypoleucos</i>	Grey Falcon	PMST	V	V		Likely			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Thalassarche melanophris</i>	Black-browed Albatross	PMST	V	V	Mi; Marine	Likely			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Stagonopleura guttata</i>	Diamond Firetail	PMST	V	V		Likely			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Pachyptila turtur subantarctica</i>	Fairy Prion (southern)	PMST	-	V		Known			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.

Type	Scientific Name	Common Name	Source	BC	EPBC	EPBC Mi/Marine	PMST/ BioNet Likelihood	BC Records (2025) – 10 km buffer	BC Records (2025) - adjacent site	Likelihood of Occurrence	Justification
Birds	<i>Diomedea epomophora</i>	Southern Royal Albatross	PMST	-	-	Mi; Marine	Likely			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Diomedea exulans</i>	Wandering Albatross	PMST	E	V	Mi; Marine	Likely			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Ardenna grisea</i>	Sooty Shearwater	PMST	-	-	Mi; Marine	Likely			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Calyptrorhynchus lathami lathami</i>	South-eastern Glossy Black-Cockatoo	PMST, BioNet	V	V		Known	7		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Gallinago hardwickii</i>	Latham's Snipe, Japanese Snipe	PMST, BioNet	V	V	Mi; Marine	Known	6		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Sternula nereis nereis</i>	Australian Fairy Tern	PMST	-	V		May			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Thalassarche impavida</i>	Campbell Albatross, Campbell Black-browed Albatross	PMST	-	V	Mi; Marine	May			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.

Type	Scientific Name	Common Name	Source	BC	EPBC	EPBC Mi/Marine	PMST/ BioNet Likelihood	BC Records (2025) – 10 km buffer	BC Records (2025) - adjacent site	Likelihood of Occurrence	Justification
Birds	<i>Thalassarche steadi</i>	White-capped Albatross	PMST	-	V	Mi; Marine	Likely			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Diomedea antipodensis</i>	Antipodean Albatross	PMST	V	V	Mi; Marine	Likely			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Hirundapus caudacutus</i>	White-throated Needletail	PMST, BioNet	V	V	Mi; Marine	Known	5		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Thalassarche salvini</i>	Salvin's Albatross	PMST	-	V	Mi; Marine	Likely			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Thalassarche bulleri</i>	Buller's Albatross, Pacific Albatross	PMST	-	V	Mi; Marine	May			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Thalassarche bulleri platei</i>	Northern Buller's Albatross, Pacific Albatross	PMST	-	V	Mi; Marine	May			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Diomedea antipodensis gibsoni</i>	Gibson's Albatross	PMST	-	V	Mi; Marine	Likely			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.

Type	Scientific Name	Common Name	Source	BC	EPBC	EPBC Mi/Marine	PMST/ BioNet Likelihood	BC Records (2025) – 10 km buffer	BC Records (2025) - adjacent site	Likelihood of Occurrence	Justification
Birds	<i>Grantiella picta</i>	Painted Honeyeater	PMST	V	V		Likely			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	PMST, BioNet	-	-	Mi; Marine	Known	1		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Charadrius leschenaultii</i>	Greater Sand Plover, Large Sand Plover	PMST	V	V	Mi; Marine	May			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Apus pacificus</i>	Fork-tailed Swift	BioNet	-	-	Mi; Marine	Known	1		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Ephippiorhynchus asiaticus</i>	Black-necked Stork	BioNet	E	-		Known	2		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Ixobrychus flavicollis</i>	Black Bittern	BioNet	V	-		Known	8		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Circus assimilis</i>	Spotted Harrier	BioNet	V	-		Known	5		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.

Type	Scientific Name	Common Name	Source	BC	EPBC	EPBC Mi/Marine	PMST/ BioNet Likelihood	BC Records (2025) – 10 km buffer	BC Records (2025) - adjacent site	Likelihood of Occurrence	Justification
Birds	<i>Haliaeetus leucogaster</i>	White-bellied Sea-Eagle	BioNet	V	-	Marine	Known	33		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Hieraetus morphnoides</i>	Little Eagle	BioNet	V	-		Known	17	1	Absent	The species has been recorded in the adjacent area of bushland, however the site does not provide suitable habitat and the species unlikely to occur on the site.
Birds	<i>Lophoictinia isura</i>	Square-tailed Kite	BioNet	V	-		Known	2		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Pandion cristatus</i>	Eastern Osprey	BioNet	V	-		Known	5		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Burhinus grallarius</i>	Bush Stone-curlew	BioNet	E	-		Known	3		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Pluvialis squatarola</i>	Grey Plover	BioNet	-	-	Mi	Known	2		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Hydroprogne caspia</i>	Caspian Tern	BioNet	-	-	Mi	Known	1		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.

Type	Scientific Name	Common Name	Source	BC	EPBC	EPBC Mi/Marine	PMST/ BioNet Likelihood	BC Records (2025) – 10 km buffer	BC Records (2025) - adjacent site	Likelihood of Occurrence	Justification
Birds	<i>Lophochroa leadbeateri</i>	Pink Cockatoo	BioNet	V	E		Known	1		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Neophema pulchella</i>	Turquoise Parrot	BioNet	V	-		Known	1		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Parvipsitta pusilla</i>	Little Lorikeet	BioNet	V	-		Known	59		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Ninox connivens</i>	Barking Owl	BioNet	V	-		Known	1		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Ninox strenua</i>	Powerful Owl	BioNet	V	-		Known	27		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Tyto novaehollandiae</i>	Masked Owl	BioNet	V	-		Known	1		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Tyto tenebricosa</i>	Sooty Owl	BioNet	V	-		Known	2		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.

Type	Scientific Name	Common Name	Source	BC	EPBC	EPBC Mi/Marine	PMST/ BioNet Likelihood	BC Records (2025) – 10 km buffer	BC Records (2025) - adjacent site	Likelihood of Occurrence	Justification
Birds	<i>Melithreptus gularis gularis</i>	Black-chinned Honeyeater (eastern subspecies)	BioNet	V	-		Known	4		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Daphoenositta chrysoptera</i>	Varied Sittella	BioNet	V	-		Known	23		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Artamus cyanopterus</i>	Dusky Woodswallow	BioNet	V	-		Known	25		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Petroica boodang</i>	Scarlet Robin	BioNet	V	-		Known	3		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Petroica phoenicea</i>	Flame Robin	BioNet	V	-		Known	3		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Petroica rodinogaster</i>	Pink Robin	BioNet	V	-		Known	1		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Actitis hypoleucos</i>	Common Sandpiper	PMST	-	-	Mi; Marine	Known			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.

Type	Scientific Name	Common Name	Source	BC	EPBC	EPBC Mi/Marine	PMST/ BioNet Likelihood	BC Records (2025) – 10 km buffer	BC Records (2025) - adjacent site	Likelihood of Occurrence	Justification
Birds	<i>Phaethon lepturus</i>	White-tailed Tropicbird	PMST	-	-	Mi; Marine	May			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Cuculus optatus</i>	Oriental Cuckoo, Horsfield's Cuckoo	PMST	-	-	Mi	May			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Calidris melanotos</i>	Pectoral Sandpiper	PMST	-	-	Mi; Marine	Likely			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Motacilla flava</i>	Yellow Wagtail	PMST	-	-	Mi; Marine	Likely			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Pandion haliaetus</i>	Osprey	PMST	-	-	Mi; Marine	Likely			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Pterodroma cervicalis</i>	White-necked Petrel	PMST	-	-	Marine	May			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Chalcites osculans</i>	Black-eared Cuckoo	PMST	-	-	Marine	Likely			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.

Type	Scientific Name	Common Name	Source	BC	EPBC	EPBC Mi/Marine	PMST/ BioNet Likelihood	BC Records (2025) – 10 km buffer	BC Records (2025) - adjacent site	Likelihood of Occurrence	Justification
Birds	<i>Sterna striata</i>	White-fronted Tern	PMST	-	-	Marine	May			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Pachyptila turtur</i>	Fairy Prion	PMST	-	-	Marine	Known			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Rhipidura rufifrons</i>	Rufous Fantail	PMST	-	-	Marine	Known			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Merops ornatus</i>	Rainbow Bee-eater	PMST	-	-	Marine	May			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Bubulcus ibis</i>	Cattle Egret	PMST	-	-	Marine	May			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Myiagra cyanoleuca</i>	Satin Flycatcher	PMST	-	-	Marine	Known			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Birds	<i>Monarcha melanopsis</i>	Black-faced Monarch	PMST	-	-	Marine	Known			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.

Type	Scientific Name	Common Name	Source	BC	EPBC	EPBC Mi/Marine	PMST/ BioNet Likelihood	BC Records (2025) – 10 km buffer	BC Records (2025) - adjacent site	Likelihood of Occurrence	Justification
Fish	<i>Macquaria australasica</i>	Macquarie Perch	PMST	-	E		Known			Absent	Suitable habitat is absent from the site. The species is unlikely to inhabit the urban drainage line to the west of the creek or Georges River
Fish	<i>Epinephelus daemeli</i>	Black Rockcod, Black Cod, Saddled Rockcod	PMST	-	V		Likely			Absent	Suitable habitat is absent from the site. The species is unlikely to inhabit the urban drainage line to the west of the creek or Georges River
Shark	<i>Sphyrna lewini</i>	Scalloped Hammerhead	PMST	-	Conservation Dependent		Likely			Absent	Suitable habitat is absent from the site. The species is unlikely to inhabit the urban drainage line to the west of the creek or Georges River
Shark	<i>Mobula alfredi</i>	Reef Manta Ray, Coastal Manta Ray	PMST	-	-	Mi	May			Absent	Suitable habitat is absent from the site. The species is unlikely to inhabit the urban drainage line to the west of the creek or Georges River
Shark	<i>Mobula birostris</i>	Giant Manta Ray	PMST	-	-	Mi	May			Absent	Suitable habitat is absent from the site. The species is unlikely to inhabit the urban drainage line to the west of the creek or Georges River
Mammal	<i>Dasyurus maculatus</i> (SE mainland population)	Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population)	PMST	V	E		Known			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Mammal	<i>Phascolarctos cinereus</i> (combined populations of Qld, NSW and the ACT)	Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory)	PMST	E	E		Known			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.

Type	Scientific Name	Common Name	Source	BC	EPBC	EPBC Mi/Marine	PMST/ BioNet Likelihood	BC Records (2025) – 10 km buffer	BC Records (2025) - adjacent site	Likelihood of Occurrence	Justification
Marsupials	<i>Petauroides volans</i>	Greater Glider (southern and central)	PMST	E	E		Likely			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Marsupials	<i>Petaurus australis</i>	Yellow-bellied Glider (south-eastern)	PMST	V	V		Likely			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Marsupials	<i>Petrogale penicillata</i>	Brush-tailed Rock-wallaby	PMST, BioNet	E	V		Known	1		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Marsupials	<i>Notamacropus parma</i>	Parma Wallaby	PMST	V	V		May			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Marsupials	<i>Isodon obesulus obesulus</i>	Southern Brown Bandicoot (eastern)	BioNet	E	E		Known	1		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Marsupials	<i>Phascolarctos cinereus</i>	Koala	BioNet	E	E		Known	261		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Marsupials	<i>Cercartetus nanus</i>	Eastern Pygmy-possum	BioNet	V	-		Known	3		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.

Type	Scientific Name	Common Name	Source	BC	EPBC	EPBC Mi/Marine	PMST/ BioNet Likelihood	BC Records (2025) – 10 km buffer	BC Records (2025) - adjacent site	Likelihood of Occurrence	Justification
Marsupials	Petaurus norfolcensis	Squirrel Glider	BioNet	V	-		Known	2		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Rodents	Pseudomys novaehollandiae	New Holland Mouse, Pookila	PMST, BioNet	-	V		Known	6		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Reptiles	Hoplocephalus bungaroides	Broad-headed Snake	PMST	E	E		May			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Reptiles	Caretta caretta	Loggerhead Turtle	PMST	E	E	Mi; Marine	May			Absent	Suitable habitat is absent from the site. The species is unlikely to inhabit the urban drainage line to the west of the creek or Georges River
Reptiles	Dermochelys coriacea	Leatherback Turtle, Leathery Turtle, Luth	PMST	E	E	Mi; Marine	Known			Absent	Suitable habitat is absent from the site. The species is unlikely to inhabit the urban drainage line to the west of the creek or Georges River
Reptiles	Chelonia mydas	Green Turtle	PMST	V	V	Mi; Marine	Known			Absent	Suitable habitat is absent from the site. The species is unlikely to inhabit the urban drainage line to the west of the creek or Georges River
Reptiles	Natator depressus	Flatback Turtle	PMST	-	-	Mi; Marine	Known			Absent	Suitable habitat is absent from the site. The species is unlikely to inhabit the urban drainage line to the west of the creek or Georges River

Figure B.1 **Likelihood of Occurrence - Flora**

Type	Scientific Name	Common Name	Source	BC	EPBC	EPBC Mi/Marine	PMST/ BioNet Likelihood	BC Records (2025) – 10 km buffer	BC Records (2025) - adjacent site	Likelihood of Occurrence	Justification
Shrubs	<i>Rhodamnia rubescens</i>	Scrub Turpentine, Brown Malletwood	PMST, BioNet	CE	CE		Known	2		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Shrubs	<i>Hibbertia puberula</i> subsp. <i>glabrescens</i>		PMST	CE	CE		Known			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Shrubs	<i>Rhodomyrtus psidioides</i>	Native Guava	PMST	CE	CE		May			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Shrubs	<i>Persoonia hirsuta</i>	Hairy Geebung, Hairy Persoonia	PMST, BioNet	E	E		Known	2		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Shrubs	<i>Allocasuarina glareicola</i>		PMST	E	E		Known	1		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Shrubs	<i>Pimelea spicata</i>	Spiked Rice-flower	PMST, BioNet	E	E		Known	319		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Shrubs	<i>Persoonia nutans</i>	Nodding Geebung	PMST, BioNet	E	E		Known	514		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.

Type	Scientific Name	Common Name	Source	BC	EPBC	EPBC Mi/Marine	PMST/ BioNet Likelihood	BC Records (2025) – 10 km buffer	BC Records (2025) - adjacent site	Likelihood of Occurrence	Justification
Shrubs	<i>Acacia terminalis</i> subsp. Eastern Sydney	Sunshine Wattle (Sydney region)	PMST	E	E		May			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Shrubs	<i>Pomaderris brunnea</i>	Rufous Pomaderris, Brown Pomaderris	PMST, BioNet	E	V		Known	5		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Shrubs	<i>Grevillea parviflora</i> subsp. <i>parviflora</i>	Small-flower Grevillea	PMST, BioNet	V	V		Known	1792		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Shrubs	<i>Acacia pubescens</i>	Downy Wattle, Hairy Stemmed Wattle	PMST	V	V		Known	4182	1	Absent	Records of this species has been recorded on adjacent bushland, however it is not likely to inhabit the site due to lack of suitable habitat.
Shrubs	<i>Melaleuca deanei</i>	Deane's Melaleuca	PMST, BioNet	V	V		Known	8		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Shrubs	<i>Acacia bynoeana</i>	Bynoe's Wattle, Tiny Wattle	PMST, BioNet	E	V		Known	159		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Shrubs	<i>Leucopogon exolasius</i>	Woronora Beard-heath	PMST, BioNet	V	V		Known	4		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.

Type	Scientific Name	Common Name	Source	BC	EPBC	EPBC Mi/Marine	PMST/ BioNet Likelihood	BC Records (2025) – 10 km buffer	BC Records (2025) - adjacent site	Likelihood of Occurrence	Justification
Shrubs	<i>Pimelea curviflora</i> var. <i>curviflora</i>		PMST	V	V		May			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Shrubs	<i>Pultenaea aristata</i>		PMST	V	V		May			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Shrubs	<i>Allocasuarina diminuta</i> subsp. <i>mimica</i>	Allocasuarina diminuta subsp. mimica population in the Sutherland Shire and Liverpool City local government areas	BioNet	E	-		Known	3		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Shrubs	<i>Wilsonia backhousei</i>	Narrow-leafed Wilsonia	BioNet	V	-		Known	1		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Shrubs	<i>Hibbertia fumana</i>		BioNet	CE	-		Known	1118		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Shrubs	<i>Hibbertia puberula</i>		BioNet	E	-		Known	1252		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.

Type	Scientific Name	Common Name	Source	BC	EPBC	EPBC Mi/Marine	PMST/ BioNet Likelihood	BC Records (2025) – 10 km buffer	BC Records (2025) - adjacent site	Likelihood of Occurrence	Justification
Shrubs	<i>Hibbertia sp. Bankstown</i>		BioNet	CE	CE		Known	217		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Shrubs	<i>Hibbertia stricta subsp. furcatula</i>		BioNet	E	-		Known	5		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Shrubs	<i>Epacris purpurascens var. purpurascens</i>		BioNet	V	-		Known	5		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Shrubs	<i>Pultenaea parviflora</i>		BioNet	E	V		Known	2		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Shrubs	<i>Pultenaea pedunculata</i>	Matted Bush-pea	BioNet	E	-		Known	2		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Shrubs	<i>Prostanthera saxicola</i>	Prostanthera saxicola population in Sutherland and Liverpool local government areas	BioNet	E	-		Known	2		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Shrubs	<i>Callistemon linearifolius</i>	Netted Bottle Brush	BioNet	V	-		Known	32		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.

Type	Scientific Name	Common Name	Source	BC	EPBC	EPBC Mi/Marine	PMST/ BioNet Likelihood	BC Records (2025) – 10 km buffer	BC Records (2025) - adjacent site	Likelihood of Occurrence	Justification
Shrubs	<i>Pomaderris prunifolia</i>	P. prunifolia in the Parramatta, Auburn, Strathfield and Bankstown Local Government Areas	BioNet	E	-		Known	2		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Trees	<i>Melaleuca biconvexa</i>	Biconvex Paperbark	PMST	V	V		May			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Trees	<i>Syzygium paniculatum</i>	Magenta Lilly Pilly, Magenta Cherry, Daguba, Scrub Cherry, Creek Lilly Pilly, Brush Cherry	PMST, BioNet	E	V		Known	1		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Trees	<i>Eucalyptus nicholii</i>	Narrow-leaved Black Peppermint	BioNet	V	V		Known	2		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Trees	<i>Eucalyptus scoparia</i>	Wallangarra White Gum	BioNet	E	V		Known	2		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Trees	<i>Macadamia integrifolia</i>	Macadamia Nut	BioNet	-	V		Known	2		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.

Type	Scientific Name	Common Name	Source	BC	EPBC	EPBC Mi/Marine	PMST/ BioNet Likelihood	BC Records (2025) – 10 km buffer	BC Records (2025) - adjacent site	Likelihood of Occurrence	Justification
Trees	<i>Macadamia tetraphylla</i>	Rough-shelled Bush Nut	BioNet	V	V		Known	2		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Orchids	<i>Thelymitra kangaloonica</i>	Kangaloon Sun Orchid	PMST	CE	CE		May			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Orchids	<i>Rhizanthella slateri</i>	Eastern Underground Orchid	PMST	V	E		May			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Orchids	<i>Pterostylis gibbosa</i>	Illawarra Greenhood, Rufa Greenhood, Pouched Greenhood	PMST	E	E		May			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Orchids	<i>Genoplesium baueri</i>	Yellow Gnat-orchid, Bauer's Midge Orchid, Brittle Midge Orchid	PMST	E	E		Likely			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Orchids	<i>Pterostylis saxicola</i>	Sydney Plains Greenhood	PMST, BioNet	E	E		Known	2		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Orchids	<i>Cryptostylis hunteriana</i>	Leafless Tongue-orchid	PMST	V	V		Likely			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.

Type	Scientific Name	Common Name	Source	BC	EPBC	EPBC Mi/Marine	PMST/ BioNet Likelihood	BC Records (2025) – 10 km buffer	BC Records (2025) - adjacent site	Likelihood of Occurrence	Justification
Orchids	<i>Caladenia tessellata</i>	Thick-lipped Spider-orchid, Daddy Long-legs	PMST	V	V		May			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Orchids	<i>Diuris aequalis</i>	Buttercup Doubletail	BioNet	E	E		Known	1		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Epiphytes and Climbers	<i>Cynanchum elegans</i>	White-flowered Wax Plant	PMST	E	E		Likely			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Epiphytes and Climbers	<i>Marsdenia viridiflora</i> subsp. <i>viridiflora</i>	Marsdenia viridiflora R. Br. subsp. viridiflora population in the Bankstown, Blacktown, Camden, Campbelltown, Fairfield, Holroyd, Liverpool and Penrith local government areas	BioNet	E	-		Known	457		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Herbs and Forbs	<i>Deyeuxia appressa</i>		PMST	E	E		Likely			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.

Type	Scientific Name	Common Name	Source	BC	EPBC	EPBC Mi/Marine	PMST/ BioNet Likelihood	BC Records (2025) – 10 km buffer	BC Records (2025) - adjacent site	Likelihood of Occurrence	Justification
Herbs and Forbs	<i>Thesium australe</i>	Austral Toadflax, Toadflax	PMST	V	V		May			Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Herbs and Forbs	<i>Persicaria elatior</i>	Knotweed, Tall Knotweed	PMST	V	V		Likely			Potential	Suitable habitat may be present on the site in the drainage channel. No records of the species is know in the 10km or from adjacent bushland areas.
Herbs and Forbs	<i>Caesia parviflora</i> var. <i>minor</i>	Small Pale Grass-lily	BioNet	E	-		Known	1		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Herbs and Forbs	<i>Wahlenbergia multicaulis</i>	Tadgell's Bluebell in the local government areas of Auburn, Bankstown, Baulkham Hills, Canterbury, Hornsby, Parramatta and Strathfield	BioNet	E	-		Known	8		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.
Mallees	<i>Eucalyptus camfieldii</i>	Camfield's Stringybark	BioNet	V	V		Known	2		Absent	The site does not provide suitable habitat and is unlikely to occur. At the time of inspection, limited native vegetation or other potential habitat is present on site.

Type	Scientific Name	Common Name	Source	BC	EPBC	EPBC Mi/Marine	PMST/ BioNet Likelihood	BC Records (2025) – 10 km buffer	BC Records (2025) - adjacent site	Likelihood of Occurrence	Justification
Community	Cooks River/ Castlereagh Ironbark Forest of the Sydney Basin Bioregion			CE	-		Likely		1	Absent	The bushland to the west of the site, likely meets the definition criteria for this TEC.

Appendix C

Biodiversity Values Map and Threshold (BMAT) Report

Biodiversity Values Map and Threshold Report

This report is generated using the Biodiversity Values Map and Threshold (BMAT) tool. The BMAT tool is used by proponents to supply evidence to your local council to determine whether or not a Biodiversity Development Assessment Report (BDAR) is required under [the Biodiversity Conservation Regulation 2017 \(Cl. 7.2 & 7.3\)](#).

The report provides results for the proposed development footprint area identified by the user and displayed within the blue boundary on the map.

There are two pathways for determining whether a BDAR is required for the proposed development:

1. Is there Biodiversity Values Mapping?
2. Is the 'clearing of native vegetation area threshold' exceeded?

Biodiversity Values Map and Threshold Report		
Date of Report Generation		03/06/2025 12:03 PM
1. Biodiversity Values (BV) Map - Results Summary (Biodiversity Conservation Regulation Section 7.3)		
1.1	Does the development Footprint intersect with BV mapping?	yes
1.2	Was <u>ALL</u> BV Mapping within the development footprint added in the last 90 days? (dark purple mapping only, no light purple mapping present)	no
1.3	Date of expiry of dark purple 90 day mapping	N/A
1.4	Is the Biodiversity Values Map threshold exceeded?	yes
2. Area Clearing Threshold - Results Summary (Biodiversity Conservation Regulation Section 7.2)		
2.1	Size of the development or clearing footprint	17,100.6 sqm
2.2	Native Vegetation Area Clearing Estimate (NVACE) (within development/clearing footprint)	6,826.4 sqm
2.3	Method for determining Minimum Lot Size	LEP
2.4	Minimum Lot Size (10,000sqm = 1ha)	2,000 sqm
2.5	Area Clearing Threshold (10,000sqm = 1ha)	2,500 sqm
2.6	Does the estimate exceed the Area Clearing Threshold? (NVACE results are an estimate and can be reviewed using the Guidance)	yes
REPORT RESULT: Is the Biodiversity Offset Scheme (BOS) Threshold exceeded for the proposed development footprint area?		yes
(Your local council will determine if a BDAR is required)		

What do I do with this report?

- If the result above indicates the BOS Threshold has been exceeded, your local council may require a Biodiversity Development Assessment Report with your development application. Seek further advice from Council. An accredited assessor can apply the Biodiversity Assessment Method and prepare a BDAR for you. For a list of accredited assessors go to: <https://customer.lmbc.nsw.gov.au/assessment/AccreditedAssessor>.
- If the result above indicates the BOS Threshold has not been exceeded, you may not require a Biodiversity Development Assessment Report. This BMAT report can be provided to Council to support your development application. Council can advise how the area clearing threshold results should be considered. Council will review these results and make a determination if a BDAR is required. Council may ask you to review the area clearing threshold results. You may also be required to assess whether the development is “likely to significantly affect threatened species” as determined under the test in Section 7.3 of the *Biodiversity Conservation Act 2016*.
- If a BDAR is not required by Council, you may still require a permit to clear vegetation from your local council.
- If all Biodiversity Values mapping within your development footprint was less than 90 days old, i.e. areas are displayed as dark purple on the BV map, a BDAR may not be required if your Development Application is submitted within that 90 day period. Any BV mapping less than 90 days old on this report will expire on the date provided in Line item 1.3 above.

For more detailed advice about actions required, refer to the Interpreting the evaluation report section of the [Biodiversity Values Map Threshold Tool User Guide](#) .

Review Options:

- If you believe the Biodiversity Values mapping is incorrect please refer to our [BV Map Review webpage](#) for further information.
- If you or Council disagree with the area clearing threshold estimate results from the NVACE in Line Item 2.6 above (i.e. area of Native Vegetation within the Development footprint proposed to be cleared), review the results using the [Guide for reviewing area clearing threshold results from the BMAT Tool](#).

Acknowledgement

I, as the applicant for this development, submit that I have correctly depicted the area that will be impacted or likely to be impacted as a result of the proposed development.

Signature: _____

(Typing your name in the signature field will be considered as your signature for the purposes of this form)

Date: _____

03/06/2025 12:03 PM

Biodiversity Values Map and Threshold Tool

The Biodiversity Values (BV) Map and Threshold Tool identifies land with high biodiversity value, particularly sensitive to impacts from development and clearing.

The BV map forms part of the Biodiversity Offsets Scheme threshold, which is one of the factors for determining whether the Scheme applies to a clearing or development proposal. You have used the Threshold Tool in the map viewer to generate this BV Threshold Report for your nominated area. This report calculates results for your proposed development footprint and indicates whether Council may require you to engage an accredited assessor to prepare a Biodiversity Development Assessment Report (BDAR) for your development.

This report may be used as evidence for development applications submitted to councils. You may also use this report when considering native vegetation clearing under the State Environmental Planning Policy (Biodiversity and Conservation) 2021 - Chapter 2 vegetation in non-rural areas.

What's new? For more information about the latest updates to the Biodiversity Values Map and Threshold Tool go to the updates section on the [Biodiversity Values Map webpage](#).

Map Review: Landholders can request a review of the BV Map where they consider there is an error in the mapping on their property. For more information about the map review process and an application form for a review go to the [Biodiversity Values Map Review webpage](#).

If you need help using this map tool see our [Biodiversity Values Map and Threshold Tool User Guide](#) or contact the Map Review Team at map.review@environment.nsw.gov.au or on 1800 001 490.

Appendix D

Groundwater Dependent Ecosystem (GDE) maps

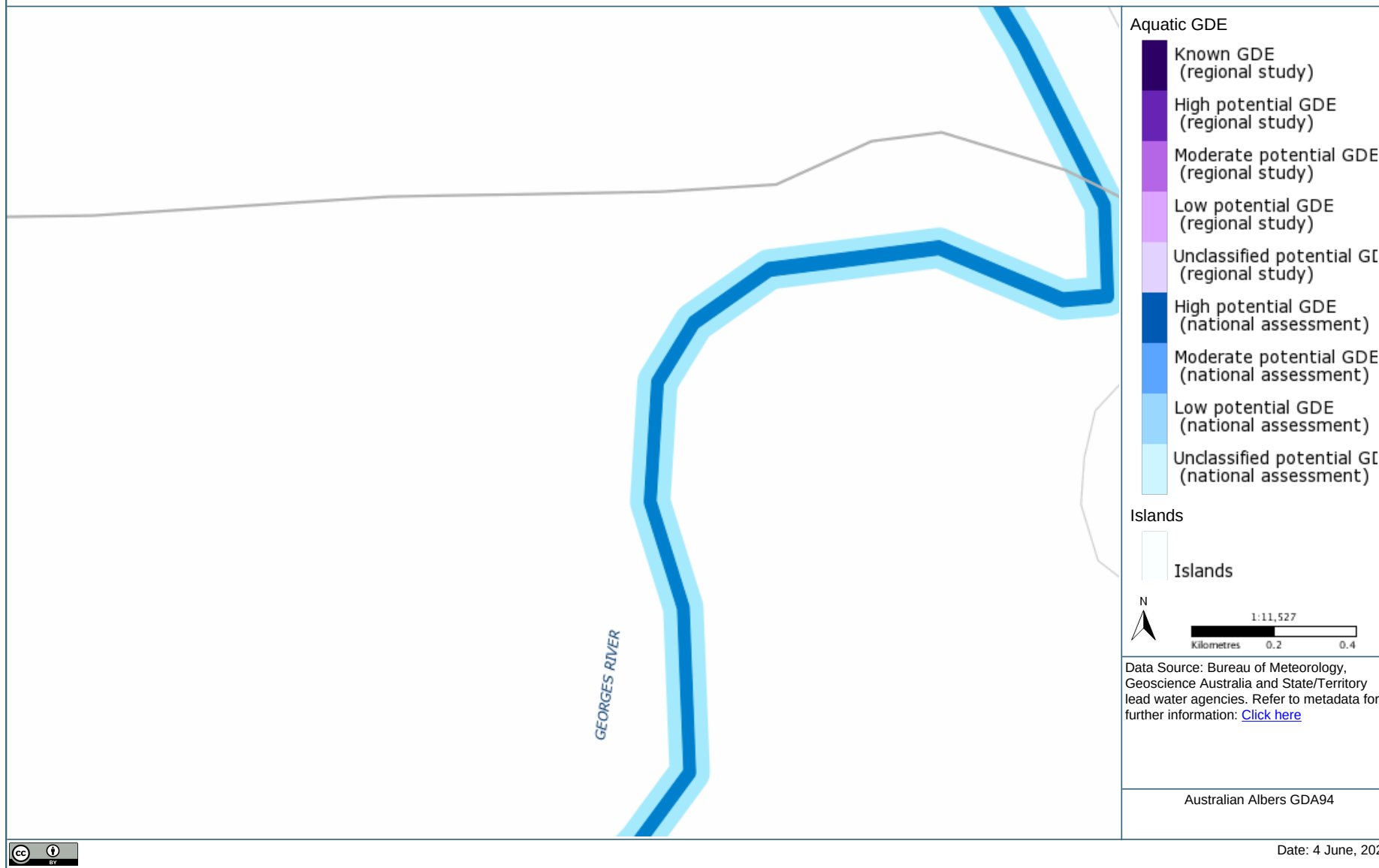


Plate D.1 Aquatic Groundwater Dependent Ecosystems (BOM 2025)

