

# Denmark Link Road Upgrade - Culvert Tie-In

Addendum review of environmental factors

October 2023



## Acknowledgement of Country

Transport for NSW acknowledges the traditional custodians of the land on which we work and live.

We pay our respects to Elders past and present and celebrate the diversity of Aboriginal people and their ongoing cultures and connections to the lands and waters of NSW.

Many of the transport routes we use today – from rail lines, to roads, to water crossings – follow the traditional Songlines, trade routes and ceremonial paths in Country that our nation's First Peoples followed for tens of thousands of years.

Transport for NSW is committed to honouring Aboriginal peoples' cultural and spiritual connections to the land, waters and seas and their rich contribution to society.



Prepared by Burtons Contractors and Transport for NSW.



# Executive summary

## The proposed modification

Transport for NSW (Transport) proposes to modify the current design of the Denmark Link Road Project by constructing a new vegetated lined channel or 'swale' to act as an additional drainage line for the culvert on Denmark Link Road (proposed modification).

Key features of the proposed modification would include:

- Establishment of a suitable work-area including the establishment of 'no-go' or exclusion zones.
- Clearing and removal of pre-existing flora and fauna prior to disturbance activities.
- Excavation and construction of an approximate 30 metre linear long drainage line.
- Landscaping, planting, and de-mobilisation.

## Need for the proposed modification

The proposed modification is needed to support local stormwater and surface water drainage around the culvert by minimising surface water pooling, preventing erosion and contributing to the culverts intended functionality.

## Proposal objectives

Section 2.3 of the project review of environmental factors (REF) identifies the proposal objectives that apply to the proposed modification.

## Options considered

The following options were considered during the assessment process:

- A 'do-nothing' option – Which would comprise allowing surface water to pool around the culvert.
- Option A – Removal and re-construction of culvert; comprising demolition and re-construction of the culvert design, taking into consideration of the current ground levels.
- Option B – Installation of a permanent surface water pump system; comprising diverting surface water from the culvert headwall into the natural drainage line by a permanent pump system.
- Option C – Construction of a drainage channel; comprising installing a drainage channel to re-direct surface water to nearby surface water bodies and by ground infiltration.

'Option C' was considered to be the preferred option due its practicality, socio-economic standing and taking into account the current landscape character and visual amenity. The remaining options were considered to be disadvantageous to the proposal which may have resulted in increased project costs, delays in construction timelines, higher maintenance costs and potential for risks to human and environmental health.

## Statutory and planning framework

The proposed modification is categorised as development for the purpose of a road and is being carried out by or on behalf of a public authority. Under section 2.109 of SEPP (Transport and Infrastructure), the proposed modification is permissible without consent. The proposed modification is not State significant infrastructure or State significant development. The proposed modification can be assessed under Division 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) (NSW). Consent from Council is not required.

## Community and stakeholder consultation

Community consultation has been performed as part of the project REF. As the proposed modification will be performed on vacant council owned land which has minimal visibility and limited community interaction or involvement, additional community consultation outside the boundaries of the project REF was considered unwarranted.

An access deed has been obtained from Council for the proposed modification.

Ongoing consultation with affected parties (i.e., Blacktown City Council and residents) will occur as per Section 5.7 of the project REF and the Denmark Link Road Construction Communications and Stakeholder Engagement Strategy (Burtons, 2023).

## Environmental impacts

The main environmental impacts for the proposed modification are:

### **Biodiversity**

The proposed modification would result in the removal of about 0.01 hectares of Freshwater wetlands on coastal floodplains of the NSW North Coast, Sydney Basin and South- East Corner bioregions (in low to moderate condition), which is listed as an endangered ecological community under the *NSW Biodiversity Conservation Act 2016* (BC Act). A five-part test (test of significance) was performed as part of the biodiversity impact assessment. The assessment concluded that there would be no significant impact on the identified endangered ecological community.

## Justification and conclusion

The proposed modification is needed to support local stormwater and surface water drainage around the culvert by minimising surface water pooling, preventing erosion and contributing to the culverts intended functionality.

While there are some environmental impacts associated with the proposed modification (including the removal of 0.01 hectares of a listed threatened ecological community), they are minor and would be adequately addressed through the proposed safeguards.

The benefits of the proposed modification are considered to outweigh the adverse impacts and risks.

Contents

<b>Executive summary .....</b>	<b>4</b>
<b>1. Introduction .....</b>	<b>8</b>
1.1 Proposed modification overview .....	8
1.2 Purpose of the report .....	9
<b>2. Need and options considered .....</b>	<b>10</b>
2.1 Strategic need for the proposed modification .....	10
2.2 Proposal objectives and development criteria .....	10
2.3 Alternatives and options considered .....	10
2.4 Preferred option .....	11
<b>3. Description of the proposed modification .....</b>	<b>12</b>
3.1 The proposed modification .....	12
3.2 Design .....	12
3.3 Construction activities .....	13
3.4 Property acquisition .....	15
<b>4. Statutory and planning framework .....</b>	<b>16</b>
4.1 Environmental Planning and Assessment Act 1979 .....	16
4.2 Other relevant NSW legislation .....	16
4.3 Commonwealth legislation .....	17
4.4 Confirmation of statutory position .....	17
<b>5. Consultation .....</b>	<b>18</b>
<b>6. Environmental assessment .....</b>	<b>19</b>
6.1 Biodiversity .....	19
6.2 Aboriginal Heritage .....	24
6.3 Other impacts .....	26
6.4 Cumulative impacts .....	28
<b>7. Environmental management .....</b>	<b>30</b>
7.1 Environmental management plans .....	30
7.2 Summary of environmental safeguards and management measures .....	31
7.3 Licensing and approvals .....	41
<b>8. Conclusion .....</b>	<b>41</b>
8.1 Justification .....	41
8.2 Objects of the EP&A Act .....	41
8.3 Ecologically sustainable development .....	42
8.4 Conclusion .....	44
<b>9. Certification .....</b>	<b>45</b>
<b>10. EP&amp;A Regulation publication requirement .....</b>	<b>46</b>
<b>11. Terms and acronyms used in this addendum REF .....</b>	<b>47</b>
<b>12. References .....</b>	<b>49</b>
<b>Appendix A .....</b>	<b>50</b>
<b>Appendix B .....</b>	<b>52</b>
<b>Appendix C .....</b>	<b>56</b>
<b>Appendix D .....</b>	<b>61</b>
<b>Appendix E .....</b>	<b>63</b>
<b>Appendix F .....</b>	<b>74</b>
<b>Appendix G .....</b>	<b>81</b>

Tables

Table 2-1. Analysis of Modification Options. .... 11

Table 3-1: Proposed property acquisition..... 15

Table 6-1. Identified Plant Community Types. .... 19

Table 6-2. Summary of the remaining environmental factors associated with the proposed modification and the potential impacts. .... 26

Table 6-3 - Potential cumulative impacts resulting from the proposed modification and the project. .... 28

Table 6-4. Safeguards and management measures. .... 29

Table 7-1: Summary of safeguards and management measures. .... 31

Table 7-2: Summary of licensing and approval required..... 41

Appendices

A        Figures

B        Consideration of section 171(2) factors and matters of National Environmental  
          Significance and Commonwealth land

C        Statutory consultation checklists

D        Neutral or beneficial effect on water quality assessment

E        Addendum Biodiversity Assessment / Pre-Clearing Survey

F        Heritage Impact Statement



# 1. Introduction

## 1.1 Proposed modification overview

Transport for NSW (Transport) proposes to modify the current design of the Denmark Link Road Project by constructing a new vegetated lined channel or ‘swale’ to act as an additional drainage line for the culvert on Denmark Link Road (proposed modification). Key features of the proposed modification would include:

- Establishment of a suitable work-area including the establishment of ‘no-go’ or exclusion zones.
- Clearing and removal of pre-existing flora and fauna prior to disturbance activities.
- Excavation and construction of an approximate 30 metre linear long drainage line.
- Landscaping, planting, and de-mobilisation.

The location of the proposed modification is shown in Figure 1-1 and *Appendix A. Section 3* describes the proposed modification in more detail.

A review of environmental factors (REF) was prepared for the Denmark Link Road (DLR) Project on the 11 November 2020 by Transport (Transport for NSW, 2020) (referred to in this addendum REF as the ‘project REF’). The project REF was placed on public display between Monday, 16 November 2020 and Monday, 14 December 2020 for community and stakeholder comment. A submissions report dated June 2021 was prepared to respond to issues raised.



Figure 1-1: Location of the proposed modification (adapted from Figure 1-2, Transport for NSW, 2020).



## 1.2 Purpose of the report

This addendum review of environmental factors (REF) has been prepared by Burton Contractors on behalf of Transport for NSW. For the purposes of these works, Transport for NSW is the proponent and the determining authority under Division 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

This addendum REF is to be read in conjunction with the project REF and the Denmark Link Road Submissions Report dated June 2021. The purpose of this addendum REF is to describe the proposed modification, to document and assess the likely impacts of the proposed modification on the environment, and to detail mitigation and management measures to be implemented.

The description of the proposed work and assessment of associated environmental impacts has been undertaken in context of section 171 of the Environmental Planning and Assessment Regulation 2021, *Roads, and Road Related Facilities EIS Guideline* (DUAP, 1996), the *Biodiversity Conservation Act 2016* (BC Act), the *Fisheries Management Act 1994* (FM Act), and the Australian Government's *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

In doing so, the addendum REF helps to fulfil the requirements of:

- Section 5.5 of the EP&A Act including that Transport for NSW examine and take into account to the fullest extent possible, all matters affecting or likely to affect the environment by reason of the activity.

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

- Whether the proposed modification is likely to result in a significant impact on the environment and therefore the necessity for an environmental impact statement to be prepared and approval to be sought from the Minister for Planning under Division 5.2 of the EP&A Act.
- The significance of any impact on threatened species as defined by the *Biodiversity Conservation Act 2016* (BC Act, 2016) and/or the *Fisheries Management Act 1994* (FM Act), in Section 1.7 of the EP&A Act and therefore the requirement for a Species Impact Statement or a Biodiversity Development Assessment Report.
- The significance of any impact on nationally listed biodiversity matters under the EPBC Act, including whether there is a real possibility that the activity may threaten long-term survival of these matters, and whether offsets are required and able to be secured.
- The potential for the proposed modification to significantly impact any other matters of national environmental significance or Commonwealth land and therefore the need to make a referral to the Australian Department of Climate Change, Energy, the Environment and Water for a decision by the Australian Government Minister for the Environment on whether assessment and approval is required under the EPBC Act.

## 2. Need and options considered

### 2.1 Strategic need for the proposed modification

**Section 2** of the project REF (Transport for NSW, 2020) addresses the strategic need for the project, the project objectives and the options that were considered. The proposed modification described and assessed in this addendum REF is consistent with the strategic need for the project.

The proposed modification is needed to support local stormwater and surface water drainage around the culvert by minimising surface water pooling, preventing erosion and contributing to the culverts intended functionality. Should a 'do nothing option' be elected, the current surface levels at the culvert outlet will continue to remain lower than the pre-existing ground level. Due to the inconsistencies between surface levels, excess surface water will continue to pool in and around the culvert. This could result in reputational loss, loss of visual and local amenity and potential structural issues during the culvert's operation.

### 2.2 Proposal objectives and development criteria

As per Section 2.3 of the project REF (Transport for NSW, 2020), the objectives of the proposal are:

- Objective 1 – Improve the traffic flow by providing an additional local road connection between Garfield Road West, Riverstone and Westminster Street Bridge, Schofields.
- Objective 2 – Provide infrastructure complimentary to the ultimate road network in the North West Growth Area.
- Objective 3 – Minimise adverse operational, environmental, and social impacts.
- Objective 4 – Provide a safe environment for all road users.
- Objective 5 – Improve amenity, accessibility, and efficiency for all road users.

### 2.3 Alternatives and options considered

#### 2.3.1 Methodology for selection of preferred option

An assessment of options was performed once the proposed modification was recognised as being an essential component to the project, subsequently resulting to the identification and formulation of three potential approaches to achieve the desired result. The preferred option was selected based on the outcomes of the assessment with respect to advantages and disadvantages of each option. The options were evaluated with reference to the original categories outlined within the project REF which included (Transport for NSW, 2020):

- Landform, geology, and soils (including salinity and contamination).
- Hydrology and flooding.
- Biodiversity.
- Socio-economic and land-use.
- Aboriginal and non-aboriginal heritage.
- Noise and vibration.
- Air quality.
- Landscape character and visual amenity.
- Utilities and services.
- Traffic and Transport.

Each option was carefully assessed and evaluated for applicability to the proposed modification. The options were ranked based on two primary factors, the probability of the issue becoming a development constraint (likelihood) and the significance of the constraint if it were to become a material consideration (magnitude).

## 2.3.2 Analysis of options

A 'do-nothing' option was not considered to be justified given the potential severity of surface water accumulation which may result in potential environmental (e.g., erosion, soil deposition) and human health risks (e.g., localised flooding). The following three primary options were considered during the assessment process:

- Option A – Removal and re-construction of culvert – Demolition and re-construction of the culvert design, taking into consideration of the current ground levels.
- Option B – Installation of a permanent surface water pump system – Divert surface water from the culvert headwall into the natural drainage line by a permanent pump system.
- Option C – Construction of a drainage channel – Install a drainage channel to re-direct surface water to nearby surface water bodies and by ground infiltration.

**Table 2-1** outlines the outcomes of the assessment with respect to the advantages and disadvantages of each primary option.

Table 2-1. Analysis of Modification Options.

Option	Advantages	Disadvantages
<b>Option A - Removal and re-construction of culvert</b>	<ul style="list-style-type: none"> <li>• Improved water flow reducing potential erosion and soil deposition.</li> <li>• Reduced maintenance requirements.</li> <li>• Extended culvert lifespan and improved structural integrity.</li> </ul>	<ul style="list-style-type: none"> <li>• High construction cost.</li> <li>• Delays to construction timeline.</li> <li>• Increase in waste generation.</li> <li>• Requirement to re-instate local road surface.</li> </ul>
<b>Option B - Installation of a permanent surface water pump system</b>	<ul style="list-style-type: none"> <li>• Option for controlled surface water discharge.</li> <li>• Allows for targeted dewatering solutions (i.e., pumps can be customised to meet specific flow and pressure requirements).</li> </ul>	<ul style="list-style-type: none"> <li>• High maintenance and operational cost.</li> <li>• Possibility of malfunction due to blockages or high levels of soil deposition.</li> <li>• Possibility for vandalism due to limited site security.</li> <li>• Potential flooding risk if the pump's operational capacity is exceeded.</li> <li>• Potential impact to landscape to character and visual amenity.</li> </ul>
<b>Option C – Construction of a drainage channel</b>	<ul style="list-style-type: none"> <li>• Potential for lowest construction and operational cost.</li> <li>• Erosion prevention and minimisation.</li> <li>• Design consistent with project landscape character and visual amenity</li> <li>• Minimal impact to project timeline</li> </ul>	<ul style="list-style-type: none"> <li>• Impact to 0.01 hectares of a listed threatened ecological community.</li> <li>• Potential risk for disturbance of aboriginal heritage and ecological risk.</li> <li>• Higher probability for encountering unexpected contamination finds.</li> </ul>

## 2.4 Preferred option

'Option C' was considered to be the preferred option due its practicality, socio-economic standing and taking into account the current landscape character and visual amenity. The remaining options were considered to be disadvantageous to the proposal which may have resulted in increased project costs, delays in construction timelines, higher maintenance costs and potential for risks to human and environmental health.

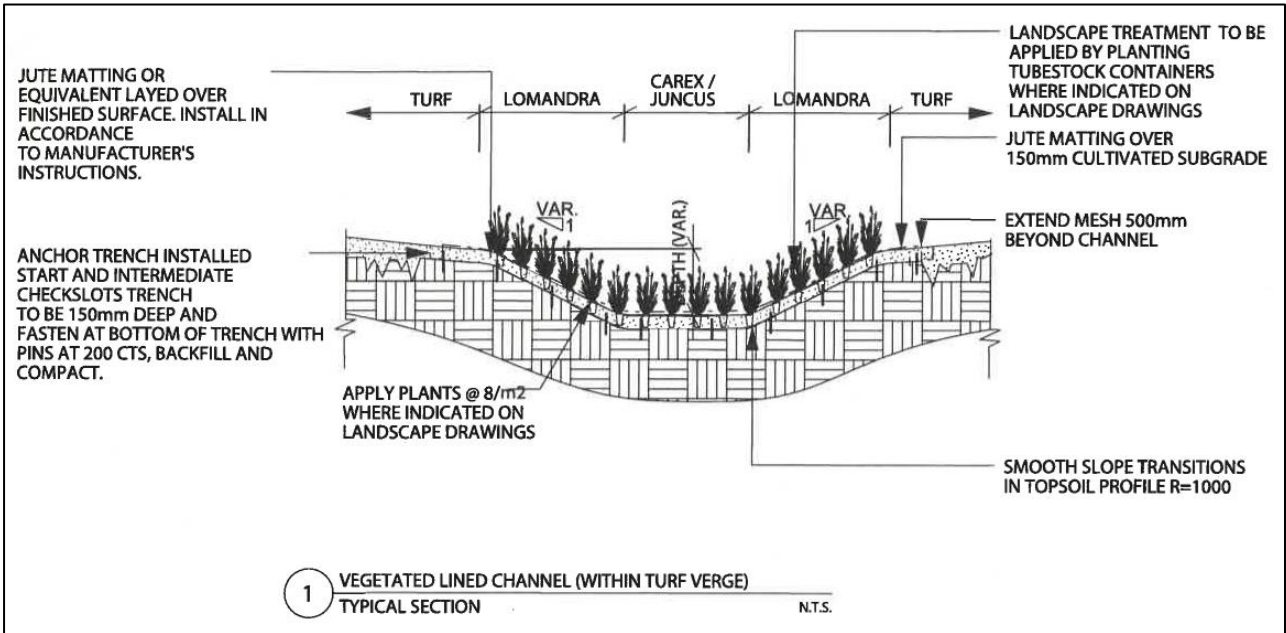
### 3. Description of the proposed modification

#### 3.1 The proposed modification

Transport for NSW proposes to modify the Denmark Link Road Project to connect the current surface levels at the culvert headwall to the surrounding pre-existing ground level by installing a connecting drainage channel. The modification would involve the construction of an approximate 30-metre vegetated lined channel or ‘swale’ which would be constructed as per a pre-approved project design. The proposed modification is shown in **Figure 3.1** and *Appendix A*.

Key features of the proposed modification would include:

- Revised project boundary establishment and local clearing and grubbing activities.
- Excavation of an approximate 30 metre linear drainage channel to tie in existing ground levels.
- Landscaping activities including planting and turfing
- Demobilisation and handover to Blacktown City Council.



**Figure 3-1:** Key features of the proposed modification (retrieved from Landscape Architects & Urban Designers (2022). *Urban Design and Landscape – Denmark Link Road from Garfield Road West, Riverstone to Westminster Street, Schofields*. RMS Registration No. DS2021/000488, Sheet No. UD-0152).

#### 3.2 Design

##### 3.2.1 Design criteria

The design of the proposed modification is compliant with the pre-approved landscaping design outlined within the architectural design drawings for the project. The design has been prepared by a suitably qualified landscape architect and has been approved for construction by Transport. The design of the proposed modification will remain consistent with the remainder of the project to ensure consistency in landscape character and visual amenity.

##### 3.2.2 Engineering constraints

The proposed modification will be subject to engineering constraints which must be considered to ensure that the modification maintains is suitable for the intended function, adapted to suit project requirements and is compliant with both environmental and health and safety standards and regulations.

Some of the key engineering constraints which have been considered for the proposed modification include:

- Hydraulic design constraints, including flow capacity to accommodate for predicted peak flow rates and water volumes and slope and gradient ensuring that surface water flow remains consistent and limits surface water accumulation.
- Geotechnical constraints, which feature local soil conditions and material selection to ensure that the material is geotechnically suitable and is resistant to environmental factors such as erosion.
- Structural constraints, which assess structural integrity to ensure that the proposed modification is physically capable of withstanding predicted surface water and possible volumes of soil deposition.
- Regulatory and permitting constraints, such as maintaining compliance with local regulations and building codes, considering local council requirements such as land access deeds and fulfilling relevant permit requirements.
- Site-specific constraints, such as site layout to minimise any unnecessary disturbance of the surrounding environment and accessibility to provide proper access for the future maintenance and inspection of the proposed modification.

## 3.3 Construction activities

### 3.3.1 Work methodology

The proposed modification would be completed by adopting the following or a similar program:

- A. Site establishment and preliminaries:
  - Worker consultation, underground utility identification (if required) and review of safety documentation and relevant permits (e.g., excavation permit).
  - Establishment of the revised project boundary and clearing and grubbing limits.
- B. Erosion and sediment control and construction de-watering (if required):
  - Installation of erosion and sediment controls (e.g., sediment fences, sandbag check dams etc).
  - Re-direction or capture of excess surface water away from the work area via a sump or surface water diversion system.
  - Completion of construction and dewatering to remove any residual surface water.
- C. Clearing and grubbing activities:
  - Engagement of a suitably qualified ecologist to supervise all clearing and grubbing activities.
  - Removal of the pre-existing vegetation and fauna within the pre-defined clearing limits.
  - Beneficial re-use or disposal of generated green waste subject to suitability.
- D. Bulk excavation and earthwork activities:
  - Bulk excavation of the proposed modification as per the pre-approved design.
  - Beneficial re-use of all generated spoil within the project boundaries (preferred approach).
  - Disposal of any un-suitable spoil to a licenced receiving facility subject to further assessment.
- E. Landscaping:
  - Completion of landscaping activities as per the pre-approved design by a qualified contractor.
- F. Completion and Demobilisation:
  - Re-instatement of former ground conditions and removal of any residual construction related waste.
  - Removal of any installed surface water capture or diversion systems.
  - Removal of any installed erosion and sediment controls and project boundary limits pending final land handover to Blacktown City Council.



### 3.3.2 Construction hours and duration

All construction activities will be performed during standard working hours where possible. The project approved working hours are:

- Monday to Friday: 7am to 6pm
- Saturday: 8am to 1pm (subject to approval)
- Sunday: No work
- Public Holidays: No work

The proposed modification will be constructed within a suitable timeframe following approval and would likely require 1-2 weeks to achieve full completion.

### 3.3.3 Plant and equipment

Plant and equipment requirements will remain consistent with what has already been pre-approved under the project's REF (Transport for NSW, 2020). The following are expected to be utilised during the construction of the proposed modification:

- 5/14 tonne excavators.
- 9 tonne swivel dumpers.
- 12 tonne bogie tippers.
- Truck and Dogs.
- Street sweeper.
- Skid Steers.
- CC10 Roller.
- Light vehicles (LV).
- Hand tools.

### 3.3.4 Earthworks

Minor earthwork activities would be performed within the footprint of the proposed modification and proceed down to the required design depth. All intrusive activities will be authorised under an internal permit system which would include an assessment of Before You Dig Australia (BYDA), underground utility service mapping and previous non-destructive digging (NDD) service location. Environmental related factors such as dust emissions will be monitored and controlled by regular water suppression (i.e., water cart). Mud-tracking will be minimised through the implementation of erosion and sediment controls and by utilising a street sweeper.

### 3.3.5 Source and quantity of materials

Excavated soil materials would primarily consist of both highly organic topsoil and sub-grade materials (e.g., natural clays) generated during the bulk earthwork activities within the footprint of the proposed modification. The proposed modification will be installed as per the approved design and is expected to generate less than 100 m<sup>3</sup> of waste, which includes a mixture of excavated soils and green waste.

### 3.3.6 Traffic management and access

Traffic management and access will be undertaken as per pre-existing traffic guidance scheme (TGS) which has been issued by an authorised traffic authority and remains consistent with the conditions and assessment outlined within the projects REF. Primary access to the proposed modification will be through Denmark Link Road and all works will be undertaken within a designated 'construction area', designated by temporary fencing and signage.

### 3.4 Property acquisition

No permanent property acquisition will be required for the proposed modification. The proposed modification will be completed on land owned by Blacktown City Council. An access deed will be obtained from Council for the proposed modification.

Table 3-1: Proposed property acquisition.

Area ID	Description	Total area	Acquisition type	Current owner	Lot, Section and DP	Land use zone (LEP)
01	Temporary construction access deed	580.31 m <sup>2</sup>	Council Access Deed	Blacktown City Council	Lots 47 and 48 of Section 13 under Deposited Plan (DP) 1485	RU4 – Primary Production Small Lots



**Figure 3-2:** Footprint of the proposed modification (red) (retrieved from [nearmap.com/maps](https://nearmap.com/maps), accessed on the 31/10/2023).

## 4. Statutory and planning framework

### 4.1 Environmental Planning and Assessment Act 1979

#### 4.1.1 State Environmental Planning Policies

##### **State Environmental Planning Policy (Transport and Infrastructure) 2021**

Chapter 2 (Infrastructure) of SEPP (Transport and Infrastructure) aims to facilitate the effective delivery of infrastructure across the State.

Section 2.10 of SEPP (Transport and Infrastructure) permits development on any land for the purpose of a road or road infrastructure facilities to be carried out by or on behalf of a public authority without consent.

As the proposed modification is for a road infrastructure facility and is to be carried out on behalf of Transport for NSW, it can be assessed under Division 5.1 of the EP&A Act. Development consent from council is not required.

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

- State Environmental Planning Policy (Resilience and Hazards) 2021.
- State Environmental Planning Policy (Planning Systems) 2021.
- State Environmental Planning Policy (Precincts – Eastern Harbour City).
- State Environmental Planning Policy (Precincts – Regional) 2021.
- State Environmental Planning Policy (Precincts – Western Parkland City) 2021.

Section 2.10 to 2.15 of SEPP (Transport and Infrastructure) contains provisions for public authorities to consult with local councils and other public authorities prior to the commencement of certain types of development.

Consultation, including consultation as required by SEPP (Transport and Infrastructure) (where applicable), is discussed in section 5 of this addendum REF.

##### **State Environmental Planning Policy (Precincts – Central River City) 2021 & State Environmental Planning (Western Parkland City) 2021**

Under Part 3.24 of the Precincts – Central River City SEPP (2021), the Department of Planning and Environment must be notified of any activities associated with the clearing of native vegetation on land within the growth area which is not subject to biodiversity certification. Most of the land including the land within the project is not bio-certified and the required notification has been provided within the project REF.

The land situated within the proposed modification footprint is currently mapped as non-bio-certified under the SEPP (Precincts – Western Parkland City) 2021.

#### 4.1.2 Blacktown Local Environment Plan (LEP) 2015

The proposed modification is not expected to impact the project's objectives as identified within the approved REF (Transport for NSW, 2020), which have been sourced from the Blacktown LEP. The proposed modification is categorised as development for the purpose of a road infrastructure facility and is being carried out by or on behalf of a public authority. Under section 2.108 of SEPP (Transport and Infrastructure) the proposed modification is permissible without consent.

### 4.2 Other relevant NSW legislation

The proposed modification will not impact the pertinence or enforceability of any of the remaining NSW legalisation listed in Section 4.2 of the approved REF (Transport for NSW, 2020).

## 4.3 Commonwealth legislation

### 4.3.1 Environment Protection and Biodiversity Conservation Act 1999

Under the EPBC Act a referral is required to the Australian Government for proposed 'actions that have the potential to significantly impact on matters of national environmental significance or the environment of Commonwealth land'. These are considered in *Appendix D* and **Section 6** of the addendum REF.

A referral is not required for proposed road actions that may affect nationally listed threatened species, endangered ecological communities, and migratory species. This is because requirements for considering impacts to these biodiversity matters are the subject of a strategic assessment approval granted under the EPBC Act by the Australian Government in September 2015. Potential impacts to these biodiversity matters are also considered as part of section 6 of the addendum REF and *Appendix D*.

#### **Findings – matters of national environmental significance (other than biodiversity matters)**

The assessment of the proposed modification's impact on matters of national environmental significance and the environment of Commonwealth land found that there would be no change to the findings of the determined activity and would be unlikely to cause a significant impact on matters of national environmental significance or the environment of Commonwealth land. A referral to the Australian Department of Climate Change, Energy, the Environment and Water is not required.

### 4.3.2 Other relevant Commonwealth legislation

The proposed modification will not change the significance or applicability of other commonwealth legislation listed in Section 4.3 of the project REF (Transport for NSW, 2020).

## 4.4 Confirmation of statutory position

The proposed modification is categorised as development for the purpose of a road infrastructure facility and is being carried out by or on behalf of a public authority. Under section 2.109 of SEPP (Transport and Infrastructure) the proposed modification is permissible without consent. The proposed modification is not State significant infrastructure or State significant development. The proposed modification can be assessed under Division 5.1 of the EP&A Act. Consent from Council is not required.

## 5. Consultation

Community consultation has been performed as part of the project REF. As the proposed modification will be performed on vacant council owned land which is has minimal visibility and limited community interaction or involvement, additional community consultation outside the boundaries of the project REF was considered unwarranted.

An access deed has been obtained from Council for the proposed modification (refer to *AAAppendix G*).

Ongoing consultation with affected parties (i.e., Blacktown City Council and residents) will occur as per Section 5.7 of the project REF and the Denmark Link Road Construction Communications and Stakeholder Engagement Strategy (Burtons, 2023).



## 6. Environmental assessment

This section of the addendum REF provides a detailed description of the potential environmental impacts associated with the construction and operation of the proposed modification of the Denmark Link Road Project. All aspects of the environment potentially impacted upon by the proposed modification are considered. This includes consideration of the guidelines Roads and Related Facilities EIS Guideline (DUAP, 1996) and is an EIS required? (DUAP, 1999) the factors specified in section 171 of the Environmental Planning and Assessment Regulation 2021. The factors specified in section 171(2) of the Environmental Planning and Assessment Regulation 2021 are also considered in *Appendix B*.

Site-specific safeguards and management measures are provided in **Section 6.1.4** and **Section 7.2** to ameliorate the identified potential impacts.

### 6.1 Biodiversity

A biodiversity assessment was prepared for the proposed modification by East Coast Ecology. The main findings of the biodiversity assessment are summarised below, and the full report can be found in *Appendix E*.

#### 6.1.1 Methodology

A comprehensive desktop assessment and field survey was performed by an accredited biodiversity assessor representing East Coast Ecology in late September 2023. The purpose of the assessment was to assess the level of potential impact to biodiversity which would be associated with the completion of the proposed modification. A pre-clearing survey was also performed to identify local vegetation communities, potential fauna habitats, any evidence of flora or fauna within the immediate area and assess their importance to matters of ecological significance.

#### 6.1.2 Existing environment

##### Ecological Communities

The proposed modification is situated within an ecological community consisting of Coastal Floodplain Phragmites Reedland (PCT3962) and exotic grassland. One endangered ecological community (EEC) was identified within the footprint of the proposed modification, comprising Freshwater wetlands on coastal floodplains of the NSW North Coast, Sydney Basin and South- East Corner bioregions (in low to moderate condition), which is currently listed under the *Biodiversity Conservation Act 2016 (NSW)* (BC Act). The ecological communities which have been identified within the study area are summarised within **Table 6-1**.

Table 6-1. Identified Plant Community Types.

PCT ID	Name	Comment	Conservation status	Area within proposed modification footprint	BC Act	EPBC Act	Condition
3962	Freshwater wetlands on coastal floodplains of the NSW North Coast, Sydney Basin and South- East Corner bioregions	Occurs within the primary footprint of the proposed modification and is primarily situated within the artificial watercourse.	Endangered Ecological Community	0.01 ha	Yes	No	Low to moderate

### Groundwater dependent ecosystems

Groundwater dependent ecosystems (GDEs) are communities of plants, animals, and organisms whose extent and life processes rely on groundwater. Terrestrial GDEs ecosystems rely on the subsurface presence of groundwater, while aquatic GDEs rely on the surface expression of groundwater (i.e., surface water ecosystems which may have a groundwater component, such as rivers, wetlands, and springs).

No aquatic GDE has been identified within the footprint of the proposed modification or within the project boundaries. One high potential terrestrial GDE, Cumberland River Flat Forest was identified at the southern end of Denmark Road which is located to the south of the proposed modification.

### Flora and Fauna

The surrounding vegetation mainly consists of exotic grasses including *Carex appressa* (Tall Sedge) and *Typhya orientalis* (Bulrush), which are currently not listed or currently being considered for listing under the EPBC Act, BC Act or identified on the list of rare or threatened Australian Plants. One priority weed, *Erythrina crista-galli* (Cockspur Coral Tree) was identified within the footprint of the proposed modification.

The following two fauna species identified within the project REF are listed under the Schedules to the BC Act:

- Dusky Woodswallow (*Artamus cyanopterus cyanopterus*) – listed as Vulnerable under the BC Act.
- Cumberland Plain Land Snail (*Meridolum corneovirens*) – listed as Endangered under the BC Act.

No threatened flora and fauna were identified within the proposed modification footprint during the site walkover (refer to *Appendix E*). Most fauna species, including the Dusky Woodswallow, are expected to be highly mobile bird and mammal species which are likely able to move away from the proposed activities. No Cumberland Plain Land Snails were identified during the project REF, but several discarded shells were collected outside the proposed modification footprint, between Bridge Street and West Parade.

Migratory species listed under the EPBC Act were identified as having a low likelihood of occurring within the project and within the footprint of the proposed modification. One introduced animal (Rabbit) was identified within the project boundaries. Pest species such as the feral cat (*Felis catus*), Dog (*Canis familiaris*) and European Red Fox (*Vulpes vulpes*) may also be present.

### Areas of Outstanding Biodiversity Value

The proposed modification and the project are not situated within any areas of Outstanding Biodiversity Value listed under Part 3 of the Biodiversity Conservation Regulation 2017. The project is not listed within the Critical Habitat Register which is maintained by the Department of Agriculture, Water and Environment.

### Wildlife connectivity corridors

As the project and the location of the proposed modification is situated within an existing road network and is considered to feature a highly fragmented landscape, the proposed modification is not part of a significant vegetation corridor. The main area of the project which provides fauna connectivity is a vegetation corridor which is present along Eastern Creek which extends to the north and south of the project and the footprint of the proposed modification.

## 6.1.3 Potential impacts

### Construction

#### Removal of Native Vegetation

The proposed modification is expected to involve the clearing of approximately 100 m<sup>2</sup> of an endangered ecological community currently listed as the Freshwater wetlands on coastal floodplains of the NSW North Coast, Sydney Basin, and South-east Corner bioregions (PCT 3962; in low to moderate condition) under the BC Act 2016 (refer to *Appendix A* and *Appendix E*). A five-part test (test of significance) was performed as part of the biodiversity impact assessment. The assessment concluded that there would be no significant impact on the identified endangered ecological community (refer to *Appendix E*).

The proposed modification would not involve the clearing of any 'existing native vegetation' within non-bio-certified areas listed under the SEPP (Precincts – Western Parkland City) 2021. Therefore, no further consideration outside the boundaries of the project REF is required.

#### Removal of Threatened Species Habitat

As a precautionary measure, the project REF adopted the possibility of threatened fauna potentially utilising the surrounding vegetation as habitat. Two key habitat types were identified within the assessment area which may be impacted due to the proposed modification, and include:

- Rivers and Streams.
- Freshwater wetland.

The proposed modification would result in 0.1 hectares of cleared land, which is categorised as exotic grassland and endangered ecological community (EEC) consisting of Coastal Floodplain Phragmites Reedland (PCT3962; in low to moderate condition). This includes the non-threatened or endangered flora species of *Carex appressa* and *Typha orientalis* which are classified as low to medium condition as per the ecologist survey due to weed encroachment and erosion being evident throughout and Coral Trees, among other environmental weeds being present within the waterway.

The biodiversity impact assessment revealed that there would be no significant impact on threatened species habitat due to the proposed modification. The proposed modification is situated within an area consisting of aquatic habitat which may provide suitable breeding or sheltering habitat for fish, amphibians, and reptiles. All impacted habitat is expected to regenerate once the watercourse has reached maturity and has reshaped.

No habitat trees (e.g., hollow bearing trees) were identified during the in-field pre-clearing survey which may provide habitat to threatened microbats. The potential impact to threatened microbats was not considered to be significant due to the presence of suitable habitat outside the revised project boundaries. No other potential key fauna habitat was identified within the footprint of the proposed modification (refer to *Appendix E*).

#### Fauna Injury and mortality

Most of the fauna species within and surrounding the footprint of the proposed modification are expected to be highly mobile and are likely able to move away from the proposed construction activities. Other non-mobile terrestrial fauna such as frogs and turtles may be less mobile and if left unmanaged may result in injury or mortality. General construction activities (e.g., heavy excavation) may also cause animals to move away from the affected area, increasing the potential for roadkill or traffic related injuries.

#### Operation

##### Wildlife connectivity and habitat fragmentation

As the proposed modification is a 'minor' alteration to an approved road network which consists of a highly fragmented landscape, the proposed modification is not considered to have an operational effect on further contributing to habitat fragmentation. Barriers to movement and dispersal patterns for flying species (i.e., birds, bats) would not represent a direct impact from the proposed modification. Given the vegetated state and limited depth of the proposed modification, ground traversing fauna would be able to travel across and between the modification outside of inundated periods.

##### Edge effects on adjacent native vegetation

As the proposed modification is situated within a very heavily fragmented region consisting of exotic grasses including priority weed species, the proposed modification is not expected to exacerbate the integrity of local vegetation communities. It is also expected that the surrounding native vegetation (*Carex Spp*, *Juncas spp.*, and *Typha Spp.*) will naturally regenerate following the construction of the proposed modification.

##### Fauna Injury and Mortality

Injury to fauna is not expected to occur due to upgrades to the local road infrastructure taking place within the surrounding environment. The woodland corridor along Eastern Creek provides natural habitats and mobility for fauna to travel through the region. The road environment is also restricted to a 50km/h speed zone due to the residential surroundings. Therefore, the likelihood of fauna being struck by passing vehicles is low.

##### Invasion and spread of invasive flora and fauna.

The proposed modification is not expected to exacerbate the current spread of invasive flora and fauna within the footprint of the proposed modification, subject to the implementation of appropriate mitigation measures and safeguards.

#### Invasion and spread of pathogens and disease.

The proposed modification may increase the risk for the introduction, spread, or exacerbation of plant diseases such as *Phytophthora cinnamomi* and Myrtle rust (*Puccinia psidii*). Plant diseases can be introduced or spread by the importation and/or direct/indirect movement of soil, water, and landscaping materials during the operational phase (i.e., direct contact with contaminated equipment from maintenance workers).

#### Changes to hydrology

The upgraded drainage system will support the local hydrological ecosystem by enhancing the flow capacity of surface water passing through the local watercourses. Following the completion of landscaping activities, the proposed modification will serve as a natural sink for surface water and enhance the local wetland habitat. Surface water captured by the proposed modification is expected to infiltrate into the local groundwater system before discharging into Eastern Creek which is located to the south of the proposed modification. The proposed modification is not expected to significantly affect the hydrology or water quality of Eastern Creek.

#### Noise, light, and vibration

An increase in thoroughfare traffic will occur along Denmark Road, New Link Road, Carlton Road, Trevithick Street and West Parade. This will therefore result in elevated impacts of noise, light, and vibration to the adjacent sensitive receivers, particularly from passing heavy vehicles. Given the proximity of a pre-existing road network, changes to levels of noise, vibration and light resulting from the proposed modification and project are not considered to have a significant impact on local fauna species.

#### Conclusion on significance of impacts

The proposed modification is not likely to significantly impact threatened species, populations or ecological communities or their habitats, within the meaning of the BC Act 2016 or *Fisheries Management Act 1994* (FM Act, 1994) and therefore a Species Impact Statement (SIS) is not required.

The modification is not likely to significantly impact threatened species, populations, ecological communities, or migratory species, within the meaning of the EPBC Act. The proposed modification will not involve any clearing of existing native vegetation within non-bio-certified areas and therefore no significant impacts which are outside the boundary of the project REF are expected.

### 6.1.4 Safeguards and management measures

The safeguards and management measures outlined within the project REF are considered appropriate for the management of any biodiversity related impacts associated with the proposed modification. No additional safeguards or management measures are therefore required to be implemented to manage potential impacts. The safeguards and management measures that would address biodiversity impacts are identified in Section 7.2.

### 6.1.5 Biodiversity offsets

#### Transport for NSW's Guidelines for biodiversity offsets

Transport for NSW's *Guidelines for biodiversity offsets* (Transport for NSW, 2016) provides advice relating to biodiversity offsets required for its activities. While the *Guideline for biodiversity offsets* (Transport for NSW, 2016) was superseded in July 2022 by Transport for NSW's *No Net Loss Guidelines* (Transport for NSW, 2022), the *Guideline for biodiversity offsets* (Transport for NSW, 2016) still applies to the Denmark Link Road project as the Project REF was determined before the *No Net Loss Guidelines* (Transport for NSW, 2022) was released.

The biodiversity assessment has provided an assessment against the *Guideline for biodiversity offsets* (Transport for NSW, 2016) to quantify the offset requirement for the proposal. This assessment is summarised in Table 6-2. Table 6-2 also presents the cumulative vegetation clearing associated with the broader Denmark Link Road project. As shown in Table 6-2, Biodiversity offsets are not required for the Denmark Link Road project under the *Guideline for biodiversity offsets* (Transport for NSW, 2016) as the offsetting thresholds documented in Table 1 of the guideline are not exceeded.

Table 6-2. Assessment against offsetting thresholds.

PCT ID	Name	Condition	Threatened ecological community		Area directly impacted	Threshold triggered
			BC Act	EPBC Act		
3962	Freshwater wetlands on coastal floodplains of the NSW North Coast, Sydney Basin and South- East Corner bioregions	Low to moderate	Yes – EEC	No	0.01 ha	No – as clearing of an EEC < 5 ha
849	Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion	Low	Yes – CEEC	No – condition does not meet minimum condition thresholds	0.753 ha	No – as all CEEC to be cleared by the project is in low condition
835	Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin	Low	Yes – EEC	No – condition does not meet minimum condition thresholds	0.64 ha	No – as clearing of an EEC < 5 ha

#### Offsetting requirements under SEPP (Precincts – Western Parkland City) 2021

Under the SEPP (Precincts – Western Parkland City) 2021, there are additional offsetting requirements where clearing of defined ‘existing native vegetation’ is cleared in non-biocertified areas.

The land situated within the proposed modification footprint is currently mapped as non-bio-certified under the SEPP (Precincts – Western Parkland City) 2021; however, no defined ‘existing native vegetation’ would be impacted by the proposed modification. Therefore, vegetation impacted by the proposed modification would not need to be offset under the SEPP (Precincts – Western Parkland City) 2021.

However, the broader Denmark Link Road project would result in the removal of 0.72 hectares of defined ‘existing native’, which would require offsetting under the SEPP (Precincts – Western Parkland City) 2021.

Under Condition 11 of the Order to confer biodiversity certification on the State Environmental Planning Policy (Sydney Region Growth Centres) 2006 (which is now incorporated into SEPP (Precincts – Western Parkland City) 2021):

*Where there are essential infrastructure proposals... that involve clearing of existing native vegetation in the non-certified areas and that do not require development consent under the SEPP, such clearing must be offset by applying the same requirements specified in condition 8 above.*

*In this case the offsets may be located outside of the Growth Centres (but within the Cumberland Plain of Western Sydney, as defined in condition 32) if the GCC is satisfied that there are no practicable offset options within the Growth Centres and all other requirements of condition 8 will be met.*

Under Condition 8 of the Order, the relevant offset requirements are:

- a. the protection of an equal or greater area of existing native vegetation elsewhere in the Growth Centres; and/or
- b. the revegetation and/or restoration of an area of land elsewhere in the Growth Centres, subject to satisfying the following,
  - i. that the clearance of existing native vegetation in the non-certified areas will not affect the capacity to achieve overall improvement or maintenance of biodiversity values for threatened species, populations and ecological communities and their habitats,
  - ii. the revegetated and/or restored areas will be protected,
  - iii. the extent of revegetation and/or restoration compared to clearing of existing native vegetation must be undertaken at a ratio of at least 3:1 (to reflect the greater ecological risks relative to retaining existing native vegetation),



iv. areas subject to revegetation and/or restoration must be of a suitable boundary configuration and design to support long-term management,

v. revegetation and/or restoration of the proposed areas would not be undertaken under another scheme or regulatory requirement already in operation at the time that the clearing is approved (this includes but is not limited to any approvals, and associated conditions of such approvals, that may be required under the Rivers and Foreshores Improvement Act 1948 and Water Management Act 2000),

vi. revegetation and/or restoration will be undertaken by suitably qualified and experienced persons using indigenous plant stock, and

vii. sufficient resources will be made available to undertake the revegetation and/or restoration and any necessary follow-up maintenance and monitoring for a minimum period of 5 years following the commencement of the revegetation and/or restoration.

Transport for NSW will address the above offset requirements in consultation with the Department of Planning, Industry and Environment.

## 6.2 Aboriginal Heritage

An aboriginal impact assessment for the proposed modification was carried out by Kelleher Nightingale Consulting Pty Ltd (KNC) in September 2023. The heritage impact assessment report and key findings are provided within *Appendix F*. The following sections provide a summary of the key findings outlined during the assessment.

### 6.2.1 Methodology

KNC was engaged to prepare an Aboriginal cultural heritage assessment report (CHAR) for Aboriginal heritage within the project area. The aboriginal heritage assessment report was prepared as an addendum to the cultural heritage assessment report prepared by KNC under the project REF. The assessment consisted of an updated search of the Heritage NSW Aboriginal Heritage Information Management System (AHIMS) database and the completion of a field inspection by a senior archaeologist.

### 6.2.2 Existing environment

An Aboriginal heritage area (Denmark Road AFT 1) has been identified within the project boundaries, at the intersection of Denmark Road and New Link Road. The heritage area is situated approximately 500 metres south of the site compound and approximately 250 metres south of the proposed modification. The assessed area was determined to primarily comprise of alluvial and shale plain woodlands adjacent to the eastern creek corridor. The immediate location was confirmed to potentially contain a surface-based artefact scatter area which was assessed as having moderate-high archaeological potential due to topographic location on a raised landform adjacent to Eastern Creek and low level of visible disturbance.

### 6.2.3 History

The project location and wider Riverstone area is the custodian home of the Darug Tribe. The distribution of native vegetation within the study area has been affected by historic and contemporary European land use practices in the region. Prior to 1788, a mixture of native vegetation communities would have extended across the entirety of the Cumberland Plain with distribution determined by a combination of factors including soil, terrain, and climate. The clearance of native vegetation across most of the area by European settlers has left remnant areas of native vegetation adjacent to Eastern Creek.

All previous aboriginal related heritage investigations have been performed in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (Office of Environment and Heritage, 2011) and in consultation with registered aboriginal parties.

### 6.2.4 Policy setting

In response to the moderate to high-potential for archaeological finds to be encountered within the project, a project-wide Aboriginal Heritage Impact Permit (AHIP) was issued from Heritage NSW under section 90A of the *National Parks and Wildlife Act 1974* (NPW Act). The completed impact assessment was performed as a precautionary approach and industrial best practice to align with the procedures outlined with the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (Department of Environment, Climate Change and Water NSW [DECWW], 2010).

### 6.2.5 Criteria

Due to the distance from the confirmed aboriginal archaeological site (Denmark Road AFT 1 – AHIMS ID. 45-5-5011), the significance of harm within the proposed modification is considered 'negligible'. The remainder of the site was evaluated to be of 'moderate risk' based on project's moderate to high archaeological significance outlined within the project REF. Artefact densities within the project were assessed to be the highest to the west of the proposal footprint within proximity to Eastern Creek.

The potential impacts resulting from construction activities may include loss of Aboriginal heritage and scientific value. However, based on the findings of the addendum heritage impact assessment, it was reasonably determined that based on the findings of existing assessments), the completed desktop study and a field inspection, that no aboriginal objects would be harmed because of the proposed modification.

#### **Conclusion on significance of impacts**

Based on the finding conclusions derived from the desktop study and field inspection by a senior archaeologist, no aboriginal archaeological objects were deemed to be affected or harmed by the proposed modification and the works may proceed with caution. Any uncovered artefacts resulting from construction activities will be preserved under the unexpected finds policy where work will cease, and a heritage consultant will be engaged to conduct further investigation.

### 6.2.6 Safeguards and management measures

The safeguards and management measures outlined within the project REF are considered appropriate for the management of any potential aboriginal heritage related impacts relating to the proposed modification. Therefore, no additional safeguards or management measures are required for the proposed modification. The safeguards and management measures that would address aboriginal heritage related impacts are identified in **Section 7.2**.

## 6.3 Other impacts

### 6.3.1 Existing environment and potential impacts

**Table 6-332** provides a summary of the pre-existing environmental factors within the environment and the potential impacts resulting from the proposed modification. The following environmental factors were identified within the project REF, however, were considered to unlikely affected by the proposed modification which are outside the boundaries of the project REF.

Table 6-3. Summary of the remaining environmental factors associated with the proposed modification and the potential impacts.

Environmental factor	Existing environment	Potential impacts	Safeguard/Management Measure Reference No. (refer to Section 7.2)
Air Quality	Minor dust generation may occur during the bulk earthwork activities and subsequent stockpiling activities.	The potential impacts are likely to be minor and will be limited to the short-term construction phase of the proposed modification.	AQ1
Resource Use and Waste Management	All generated spoil from the proposed modification is intended to be beneficially re-used by the project. All resources/waste will be utilised and managed within the current boundaries of the project REF.	Poor waste management practices can lead to increase waste disposal costs and material handling and failure to achieve the project's sustainability goals or targets.	WM1
Noise and Vibration	The project activities and plant/equipment requirements will remain consistent with approved project REF. The proposed activities are situated approximately 70 metres east of Riverstone Paceway and 75 metres west of a low-density residential property at 37 Creek Street.	Based on the nature of the proposed activity, the noise and vibration levels are not expected to exceed the predicted levels outlined within the projects operational noise and vibration management plan (ONVMP) (MacMuller, 2020).	NV1, NV2, NV3
Landscape and visual character	The approved REF includes the design of a swale drainage design which has been incorporated within the project. The proposed modification incorporates a pre-approved project design to ensure consistency with the surrounding landscape and project features.	As the proposed modification is a 'minor' alteration and is comparable with the pre-approved project design, the impact of the proposed modification is expected to be 'low'.	LCV1
Soils and Surface Water Quality	The proposed modification would involve the removal of pre-existing vegetation, topsoil, and minor earthworks to the design depth. All generated spoil is intended to be beneficially re-used within the project.	Based on the current and surrounding land-use, the risk of contamination above the prescribed land-use is expected to be 'low'. Pre-existing site contamination investigations have returned negative for evidence of significant contamination outside the approved land-use.	SWQ1, SWQ2, SWQ3, SWQ4

Environmental factor	Existing environment	Potential impacts	Safeguard/Management Measure Reference No. (refer to Section 7.2)
Socio-Economic	The Western Sydney Region is the third largest economy and one of the fastest growing economies in Australia. The region is considered to have a higher average unemployment rate, lower salary levels, higher levels of mortgage stress, is heavily car dependent and has 75% of its working population also living in the region.	There may be some financial impact resulting from the proposed modification associated with ongoing maintenance requirements and repairs. There may also be a negative impact to land affected property values due to the location and maintenance requirements of the proposed modification.	SEC1 and SEC2
Transport and Traffic	The local road network consists of both unsealed and sealed roads with varying degrees of condition levels. Based on the predictions outlined within the REF, there is expected to be about 1,400 vehicles/day/two-way by 2026 and subsequently increasing the local road capacity of 2,000 vehicles/day/two-way.	There is potential for some delays to traffic on Garfield Road West and the local road network caused by increased traffic, lane closures and reduced speed limits. There may also be a chance for queuing along Bridge Street due to limited road infrastructure and increased traffic.	TT1 and TT2
Hydrology, Flooding and Groundwater	The project REF outlined that a modest increase in impermeable surfaces would be expected due to the construction and widening of additional road surfaces. The resulting road widening will also be required to traverse existing drainage lines and watercourses.	The proposed modification would not result in an increase in impermeable surfaces outside the project REF. The proposed drainage design was considered adequate to address issues resulting from predicted levels surface water run-off. The project REF outlined only minor changes to tributary flooding and undeveloped affected areas. The project REF also outlined a negligible impact on peak flood levels resulting from backwater flooding from the Hawkesbury Nepean River.	HF1, HF2 and HF3

## 6.4 Cumulative impacts

### 6.4.1 Study Area

A cumulative impact happens when multiple projects are carried out simultaneously and within proximity to one another. The impacts can be triggered by construction and operational activities, potentially leading to a more significant impact on the surrounding area than what would be anticipated if each project was executed independently (Transport for NSW, 2020).

As the proposed modification is a 'minor alteration' to the approved scope, no significant cumulative impact is expected which are outside the boundaries of the project REF. All potential impacts (i.e., biodiversity and heritage) have been independently assessed and determined to represent a 'low risk' to the environment and its contribution to potential impacts.

### 6.4.2 Potential impacts

**Table 6-43** outlines the potential cumulative impacts for both the construction and operational phases of the Denmark Link Road Project (table adopted from **Table 6-44**, Transport for NSW, 2020).

Table 6-4 - Potential cumulative impacts resulting from the proposed modification and the project.

Environmental Factor	Construction	Operation
Noise	There is the potential for the proposal to occur concurrently with and near construction works associated with other projects (such as the development of the Riverstone West precinct). The Garfield Road upgrades would occur after the completion of the Denmark Link Road. There is the potential for cumulative noise impacts (i.e., a higher noise level than for any individual project) where works are carried out at the same time, and both are predicted to exceed noise management levels at the same receivers. Cumulative noise impacts, if they occur, would only be experienced for short periods at a time, with the implementation of appropriate management measures and respite. There is also the potential for consecutive impacts, where a receiver is affected by one project and then by another project shortly after. This can be minimised through coordination between projects.	No cumulative operation stage noise impacts are expected as a result of the proposal. The Denmark Link Road would be existing infrastructure at the time the Garfield Road upgrades become operational.
Traffic and transport	Multiple projects which generate construction traffic, and / or which involve traffic lane closures or pedestrian / cyclist diversions can combine to result cumulative delays and affect people's ability to access places of employment, services, family, and friends. Construction traffic generated by the proposal is small and would occur primarily outside of peak periods. There are not expected to be broader network impacts even with construction traffic generated by adjacent projects. Where lane closures and pedestrian diversions are needed, coordination with other projects would reduce the potential for cumulative impacts (i.e., the number of closure/diversion periods).	In the short-term the proposal would assist in reducing congestion on Garfield Road West and would reduce travel times for people traveling to and from the southern part of Riverstone. Over the longer term, and following the completion of Garfield Road upgrades, the proposal would represent an important improvement to local connectivity. The proposal would not increase operational traffic volumes, composition or distribution and is therefore not expected to have operational traffic impacts.
Non-Aboriginal Heritage	While other nearby projects have identified impacts on local and State heritage, impacts levels associated with the proposal are low and would not generate additional impacts of a cumulative nature.	No additional cumulative heritage impacts beyond those identified for the construction stage are expected.



Environmental Factor	Construction	Operation
Visual	Multiple projects which introduce new visual elements to the environment could result in an overall cumulative increase in visual impacts. In this case visual impacts would be highly localised. In this context cumulative impacts are not expected.	The proposal would deliver improved public domain areas. No additional cumulative visual impacts beyond those identified for the construction stage are expected.
Biodiversity	The biodiversity assessment did not identify any construction stage cumulative impacts associated with the proposal. The loss of native vegetation would be offset.	The biodiversity assessment did not identify any operational stage cumulative impacts associated with the proposal.

The most effective means of dealing with potential cumulative impacts is to reduce the impacts attributed to the proposed modification itself. These measures are further detailed within **Section 7.2**. The most effective way to minimise potential cumulative effects is to minimise the attribute impacts through the incorporation of safeguards and management measures. A coordinated approach between the project and surrounding concurrent projects is required to minimise potential cumulative impacts.

### 6.4.3 Safeguards and management measures

**Table 6-54** outlines the safeguards and management measures which will be implemented to manage cumulative impacts.

Table 6-5. Safeguards and management measures.

Impact	Environmental safeguards	Responsibility	Timing	Reference
Cumulative Impacts	<p>Current and upcoming projects with the potential to interact with the proposal will be monitored. Where potential cumulative impacts are identified, the scheduling of works will be coordinated with interacting projects to minimise potential impacts.</p> <p>This will include:</p> <ul style="list-style-type: none"> <li>Scheduling works to allow suitable respite periods for construction noise</li> <li>Scheduling of works to minimise consecutive construction noise impacts, where feasible</li> <li>Coordinating lane closures and pedestrian/cyclist diversions to minimise the overall number of occasions where disruption occurs.</li> </ul>	Transport for NSW Project Manager	Construction	Additional Measure

Other safeguards and management measures that would address cumulative impacts are identified in **Section 7.2**.

## 7. Environmental management

### 7.1 Environmental management plans

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

## 7.2 Summary of environmental safeguards and management measures

Environmental safeguards and management measures for the Denmark Link Road Project are summarised in **Table 7-1**. Additional safeguards and management measures identified in this addendum REF are included in bold and italicised font. The safeguards and management measures will be incorporated into the design phase of the proposed modification and the CEMP implemented during construction and operation of the proposed modification, should it proceed. These safeguards and management measures will minimise any potential adverse impacts arising from the proposed works on the surrounding environment. As indicated in Table 7-1, no additional safeguards or management measures were identified for the proposed modification.

Table 7-1: Summary of safeguards and management measures.

No.	Impact	Environmental safeguards and management measures	Responsibility	Timing	Reference
GEN1	General – minimise environmental impacts during construction	<p>A CEMP will be prepared and submitted for review and endorsement of the Transport for NSW Environment Manager prior to commencement of the activity. As a minimum, the CEMP will address the following:</p> <ul style="list-style-type: none"> <li>Any requirements associated with statutory approvals</li> <li>Details of how the project will implement the identified safeguards outlined in the REF</li> <li>Issue-specific environmental management plans</li> <li>Roles and responsibilities</li> <li>Communication requirements</li> <li>Induction and training requirements</li> <li>Procedures for monitoring and evaluating environmental performance, and for corrective action</li> <li>Reporting requirements and record-keeping</li> <li>Procedures for emergency and incident management</li> <li>Procedures for audit and review.</li> </ul> <p>The endorsed CEMP will be implemented during the undertaking of the activity.</p>	Contractor Transport for NSW project manager	Pre-construction Detailed design	
GEN2	General – notification	All businesses, residential properties, and other key stakeholders (e.g., schools, local councils) affected by the activity will be notified at least five days prior to commencement of the activity	Contractor Transport for NSW project manager	Pre-Construction	
GEN3	General – environmental awareness	All personnel working on site will receive training to ensure awareness of environment protection requirements to be implemented during the project. This will include up-front site induction and regular 'toolbox' style	Contractor Transport for NSW project manager	Pre-Construction	

No.	Impact	Environmental safeguards and management measures	Responsibility	Timing	Reference
		briefings. Site-specific training will be provided to personnel engaged in activities or areas of higher risk.			
TT1	Traffic and Transport	<p>A Traffic Management Plan (TMP) will be prepared and implemented as part of the CEMP. The TMP will be prepared in accordance with the Traffic Control at Work Sites Manual (Roads and Maritime, 2018) and QA Specification G10 Control of Traffic (Roads and Maritime, 2008). The TMP will include:</p> <ul style="list-style-type: none"> <li>• Confirmation of haulage routes</li> <li>• Measures to maintain access to local roads and properties</li> <li>• Site-specific traffic control measures (including signage) to manage and regulate traffic movement</li> <li>• Measures to maintain pedestrian and cyclist access</li> <li>• Requirements and methods to consult and inform the local community of impacts on the local road network</li> <li>• Access to construction sites including entry and exit locations and measures to prevent construction vehicles queuing on public roads</li> <li>• A response plan for any construction traffic incident.</li> <li>• Consideration of other developments that may be under construction to minimise traffic conflict and congestion that may occur due to the cumulative increase in construction vehicle traffic monitoring, review, and amendment mechanisms.</li> </ul>	Contractor	Pre-Construction	Section 4.8 of QA G36 Environment Protection
TT2	Traffic and Transport	The operation of the Bridge Street / Railway Terrace / Westminster Street intersection will be reviewed following the opening of the new Denmark Link Road	Transport for NSW	Operation	Additional Measure
NV1	Construction noise and vibration	<p>A Noise and Vibration Management Plan (NVMP) has been prepared and implemented as part of the CEMP. The NVMP has been prepared in accordance with the Interim Construction Noise Guideline (ICNG) (DECC, 2009) and the Construction Noise and Vibration Guideline (Roads and Maritime Services, 2016) and identify:</p> <ul style="list-style-type: none"> <li>• Key potential noise and vibration generating activities associated with the activity</li> <li>• Feasible and reasonable mitigation measures to be implemented</li> </ul>	Contractor	Pre-Construction	Section 4.6 of GA G36

No.	Impact	Environmental safeguards and management measures	Responsibility	Timing	Reference
		<ul style="list-style-type: none"> <li>A monitoring program to assess performance against relevant noise and vibration criteria</li> <li>A review process scheduling and assessing out-of-hours activities including consideration of alternatives to out-of- hours work, plant selection, work locations and screening to minimise impacts</li> <li>A working schedule which records respite periods for extended out-of-hours works</li> <li>Arrangements for consultation with affected neighbours and</li> <li>Sensitive receivers, including notification and complaint handling procedures.</li> <li>Contingency measures to be implemented in the event of non-compliance with noise and vibration criteria.</li> </ul>			
NV2	Construction Vibration	<p>Where vibration intensive plant such as vibratory rollers are used, vibration must be managed to minimise disturbance to building occupants and to avoid damage to buildings and other structures (including heritage fabric).</p> <p>This includes adhering to the recommended minimum working distances for vibration intensive plant identified in Section 7.1 of the Construction Noise and Vibration Guideline (Roads and Maritime Services, 2016).</p> <p>If recommended minimum working distances cannot be met by selecting smaller plant, vibration monitoring will occur to quantify and help manage vibration. If necessary, trial vibration measurements will be conducted to further assess any possible impacts and buffer distances that may be required.</p>	Contractor	Construction	Additional Measure
NV3	Construction noise and vibration	<p>All sensitive receivers likely to be affected will be notified at least five working days prior to commencement of any works associated with the activity that may have an adverse noise or vibration impact. The notification will provide details of:</p> <ul style="list-style-type: none"> <li>The proposal.</li> <li>The construction period and construction hours.</li> <li>Contact information for project management staff.</li> <li>Complaint and incident reporting.</li> </ul>	Contractor	Pre-construction	Standard Measure

No.	Impact	Environmental safeguards and management measures	Responsibility	Timing	Reference
		<ul style="list-style-type: none"> <li>How to obtain further information.</li> </ul>			
NAH1	Non-Aboriginal heritage	<p>A Non-Aboriginal Heritage Management Plan has been prepared and implemented as part of the CEMP. It provides specific guidance on measures and controls to be implemented to avoid and mitigate impacts to non-Aboriginal heritage and includes:</p> <ul style="list-style-type: none"> <li>Site inductions which cover significant heritage fabric and protection requirements</li> <li>Specific protection measures including fencing and maintenance of buffer areas</li> <li>Tailored construction methods for works near significant heritage fabric (such as use of hand tools only).</li> </ul>	Contractor	Pre-construction	Standard Measure
NAH2	Non-Aboriginal Heritage	The later 19 <sup>th</sup> century brick culvert and the open cut drainage channel under the railway line on the eastern boundary of the proposal footprint at Hebe Farm will be protected during construction.	Contactore	Construction	Additional Measure
NAH3	Non-Aboriginal heritage	An archaeological testing program will be submitted as an Exception 1B under section 139(4) of the <i>Heritage Act 1977</i> . Test trenches will target zones of archaeological potential within the development footprint at Hebe Farm, notably the area bordering the brick culvert and drainage channel, which runs into the property. Archival recording of any 'works' uncovered will also be undertaken as part of the testing program.	Transport for NSW	Detailed design	Additional Measure
NAH4	Non-Aboriginal heritage	A Photographic Archival Recording will be prepared for the portion of Hebe Farm within the project footprint prior to impact.	Transport for NSW	Detailed design	Additional Measure
NAH5	Non-Aboriginal heritage	The Standard Management Procedure – Unexpected Heritage Items (Roads and Maritime Services, 2015) will be followed in the event any unexpected heritage items, archaeological remains or potential relics of non-Aboriginal origin are encountered. Work will only re-commence once the requirements of that Procedure have been satisfied.	Contractor	Construction	Section 4.10 of GA G36 Environment Protection
AH1	Aboriginal cultural Heritage	An application for an Aboriginal Heritage Impact Permit (AHIP) has been made under section 90A of the <i>National Parks and Wildlife Act 1974</i> for the land and associated objects within the boundaries of the project footprint.	Transport for NSW	Detailed Design	Additional Measure
AH2	Aboriginal cultural heritage	The non-impacted portion of site Denmark Road AFT 1 (outside of construction and AHIP boundary) will be identified in the Construction Environmental Management Plan (CEMP) prior to construction activities to	Contractor	Construction	Additional Measure



No.	Impact	Environmental safeguards and management measures	Responsibility	Timing	Reference
		ensure this part of the site is avoided and not impacted by the proposal. The site area should be marked as an environmentally sensitive “no-go zone”.			
AH3	Aboriginal cultural heritage	Workers will be inducted as to appropriate Aboriginal heritage protection measures.	Contractor	Construction	Additional measure
AH4	Aboriginal cultural heritage	<p>The Standard Management Procedure – Unexpected Heritage Items (Roads and Maritime Services, 2015) will be followed in the event that an unknown or potential Aboriginal object/s, including skeletal remains, is found during construction.</p> <p>This applies where Transport for NSW does not have approval to disturb the object/s or where a specific safeguard for managing the disturbance (apart from the Procedure) is not in place. Work will only re-commence once the requirements of that the procedure have been satisfied.</p>	Transport for NSW	Pre-construction	Additional measure
AH5	Aboriginal cultural heritage	Archaeological salvage excavation will be required for the impacted portion of site Denmark Road AFT 1 (partial impact on site of moderate significance). Salvage excavation must be completed prior to any activities which may harm Aboriginal objects at this site location, including all construction and pre- construction works. Salvage excavation activities would be undertaken in accordance with the methodology provided in the Cultural Heritage Assessment Report.	Transport for NSW	Pre-construction	Additional measure
BIO1	Biodiversity Impacts	A flora and fauna management plan has been prepared for the project and has been incorporated as part of the CEMP.	Contractor	Construction	Section 4.8 of QA G36 Environment Protection
BIO2	Biodiversity Impacts	Measures to further avoid and minimise the construction footprint and native vegetation or habitat removal (including hollow bearing trees) will be investigated during detailed design and implemented where practicable and feasible.	Transport for NSW	Detailed Design	Additional measure
BIO3	Biodiversity Impacts	<p>A pre-clearing survey will be conducted and will:</p> <ul style="list-style-type: none"> <li>Confirm clearing boundaries, exclusion zones, protected habitat features and revegetation areas prior to starting work</li> <li>Identify, in toolbox talks, where biodiversity controls are located on the site.</li> </ul>	Contractor	Pre-Construction	Additional measure
BIO4	Spreading of Weeds	Weed management will occur in accordance with Biodiversity Guidelines, Guide 6 (Roads and Maritime, 2016) and include:	Contractor	Pre-Construction	Additional measure

No.	Impact	Environmental safeguards and management measures	Responsibility	Timing	Reference
		<ul style="list-style-type: none"> <li>The Identification of weeds on site (confirmed during pre- clearing survey)</li> <li>Weed management priorities and objectives Exclusion \ zones, protected habitat features and revegetation areas prior to starting work within or directly next to the site</li> <li>The location of weed infested areas</li> <li>Weed control methods</li> <li>Measures to prevent the spread of weeds, including machinery hygiene procedures and disposal requirements</li> <li>A monitoring program to measure the success of weed management</li> <li>Communication with local Council noxious weed representative.</li> </ul>			
BIO5	Spread of diseases affecting plants	Management measures will be implemented to control and/or prevent the introduction and/or spread of disease-causing agents such as bacteria and fungi in accordance with the Biodiversity Guidelines, Guide 7 (Roads and Maritime, 2016).	Contractor	Construction	Additional Measure
BIO6	Unexpected threatened species finds	If unexpected flora or fauna are discovered on site stop work immediately and implement the Roads and Maritime Unexpected Threatened Species Find Procedure in the Biodiversity Guidelines, Guide 1 (Roads and Maritime, 2016).	Contractor	Construction	Additional Measure
LCV1	Landscape character and visual impact	<p>An urban design plan (including detailed urban design drawings and landscape plans) will be prepared to support the final detailed project design.</p> <p>The urban design will present an integrated urban design for the project, providing further practical detail on the application of design principles and objectives identified in this addendum REF. The plan will confirm design treatments for:</p> <ul style="list-style-type: none"> <li>Location and identification of existing vegetation and proposed landscaped areas, including species to be used.</li> <li>Details of the staging of landscape works taking account of related environmental controls such as erosion and sedimentation controls and drainage.</li> </ul>	Transport for NSW	Detailed Design	Standard Measure

No.	Impact	Environmental safeguards and management measures	Responsibility	Timing	Reference
		<ul style="list-style-type: none"> <li>Procedures for monitoring and maintaining landscaped or rehabilitated areas.</li> </ul> <p>The urban design plan will be prepared in accordance with relevant guidelines, including:</p> <ul style="list-style-type: none"> <li>Beyond the Pavement urban design policy, process, and principles (Roads and Maritime, 2014)]</li> <li>Landscape Guideline (Roads and Maritime Services, 2019).</li> </ul>			
LCV2	Visual Impacts	Following the completion of construction works, plant/equipment will be removed, and disturbed areas will be revegetated, turfed, or otherwise restored as appropriate.	Contractor	Construction	Additional measure
LCV3	Visual and landscaped Impacts	Opportunities to support the Five Million Trees for Greater Sydney initiative and the greening our city Premier's priority will be explored during the detailed design and as part of the development of landscape design for the proposal. This will include consultation with Blacktown City Council.	Transport for NSW	Detailed design	Additional measure
LCV4	Impacts from lighting	Temporary site lighting will be installed and operated in accordance with AS4282:1997 Control of the Obtrusive Effect of Outdoor Lighting, and an approved Traffic Management Plan.	Contractor	Construction	Additional Measure
LCV5	Impacts from lighting	The design of new street lighting will consider potential light spill impacts on adjacent properties.	Transport for NSW	Detailed design	Additional measure
AQ1	Air Quality	<p>An air quality management plan (AQMP) has been prepared and has been implemented as part of the CEMP. The AQMP includes but is not limited to:</p> <ul style="list-style-type: none"> <li>Potential sources of air pollution (including site compound operation)</li> <li>Air quality management objectives consistent with any relevant published EPA guidelines</li> <li>Mitigation and suppression measures to be implemented.</li> <li>Methods to manage work during strong winds or other adverse weather conditions</li> </ul>	Contractor	Construction	Section 4.4 of QA G36 Environment Protection
SWQ1	Soil and water	A soil and water management plan (SWMP) has been prepared and implemented as part of the CEMP. The SWMP identifies all reasonably foreseeable risks relating to soil erosion and water pollution and outline how the risks have been addressed during construction.	Contractor	Detailed design pre-construction	Section 2.1 of QA G38 Soil and Water Management

No.	Impact	Environmental safeguards and management measures	Responsibility	Timing	Reference
SWQ2	Soil and water	A site-specific erosion and sediment control plan has been prepared and will be updated to reflect the ERSED requirements of the proposed modification. The erosion and sediment control plan will be implemented as part of the Soil and Water Management Plan.	Contractor	Detailed design pre-construction	Section 2.1 of QA G38 Soil and Water Management
SWQ3	Contamination	<p>A Detailed Site Investigation (“DSI”) will be undertaken prior to construction works commencing, targeting the AECs where exposure pathways are potentially complete. The DSI should include, but not be limited to:</p> <ul style="list-style-type: none"> <li>Investigation of the extent and nature of the illegally dumped waste in bushland at the southern end of the Denmark Road section of the Site, and between West Parade and Bridge Street. This will likely require clearing of vegetation</li> <li>Collection of a surface water sample from the dam on Lot 10 Section W DP 712 to assess for water quality</li> <li>Soil sampling across Lots 10 and 14 Section W DP 712, to assess possible contamination from potential historical farming practices</li> <li>Sampling of the fill along Denmark Road, Carlton Street, Trevithick Street, West Parade and Bridge Street.</li> </ul>	Transport for NSW	Detailed Design	Additional Measure
SWQ4	Contamination	If contaminated areas are encountered during construction, appropriate control measures will be implemented to manage immediate risks of contamination. All other work that may impact on the contaminated area will cease until the nature and extent of the contamination has been confirmed and any necessary site-specific controls or further actions identified in consultation with the Transport for NSW Environmental Manager and/or EPA.	Contractor	Detailed design pre-construction	Section 4.2 of QA G36 Environment Protection
SWQ5	Accidental spills	A site—specific emergency spill plan has been prepared and includes spill management measures in accordance with the Transport for NSW Code of Practice for Water Management (RTA, 1999) and relevant EPA guidelines. The plan outlines the measures which will be implemented in the event of a spill, including the initial response and containment and the notification of emergency services and relevant authorities (including Transport for NSW and EPA officers).	Contractor	Detailed pre-construction	Section 4.3 of QA G36 Environment Protection
SWQ6	Salinity	Soil salinity testing will be carried out prior to construction to further assess these risks and implement appropriate controls.	Contractor	Detailed pre-construction	Additional Measure
HF1	Flooding and Hydrology	Staging for the construction of the proposal will consider adequate stormwater flow paths (including diversions and temporary connections as	Contractor	Construction	Additional Measure

No.	Impact	Environmental safeguards and management measures	Responsibility	Timing	Reference
		required) to be implemented and maintained during construction to minimise the potential on-site or upstream flooding.			
HF2	Flooding and Hydrology	A flood management procedure has been prepared which details the procedures which will be implemented upon when extreme weather is predicted and where there is a risk of flooding affecting the work site and compound, including the removal and storage of plant and equipment and securing of site.	Contractor	Construction	Additional Measure
HF3	Flooding and hydrology	Further investigation into flooding impacts on the existing dwellings on the northern side of Garfield Road West near the intersection with Denmark Road will occur with the purpose of minimising impacts.	Transport for NSW	Detailed design	Additional measure
SEC1	Anxiety and uncertainty	<p>A Community and Stakeholder Engagement Plan (CSEP) will be prepared and will include:</p> <ul style="list-style-type: none"> <li>Procedures and mechanisms that would be implemented in response to the key social impacts identified for the proposal.</li> <li>Procedures and mechanisms that would be used to engage with affected landowners, business owners, and the wider community to identify potential access, parking, business visibility, and other impacts and develop appropriate management measures</li> <li>Procedures to keep the community informed about construction and any associated changes to conditions (e.g., detours or lane closures) such as through advertisements in local media and advisory notices or variable message signs</li> <li>Procedure for the management of complaints and enquiries, including a contact name and number for complaints.</li> </ul>	Transport for NSW	Pre-Construction	Standard Measure
SEC2	Anxiety and uncertainty	Horse owners will be engaged to identify suitable management measures for horse riders near the construction areas. Management measures would be adopted in the traffic management plan and noise management plan to mitigate against livestock disturbance.	Transport for NSW	Pre- construction	Additional Measure
WM1	Waste	<p>A waste management plan (WMP) has been prepared and will be implemented as part of the CEMP. The WMP includes but is not limited to:</p> <ul style="list-style-type: none"> <li>Measures to avoid and minimise waste associated with the project</li> <li>Classification of waste and management options (re-use, recycle, stockpile, disposal)</li> </ul>	Contractor	Detailed design / pre-construction	Section 4.2 of QA G36 Environment Protection

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No.	Impact	Environmental safeguards and management measures	Responsibility	Timing	Reference
		<ul style="list-style-type: none"> <li>Statutory approvals required for managing both on and off-site waste, or application of any relevant resource recovery exemptions</li> <li>Procedures for storage, transport, and disposal'</li> <li>Monitoring, record keeping and reporting.</li> </ul>			
Cl1	Cumulative Impacts	<p>Current and upcoming projects with the potential to interact with the proposal will be monitored. Where potential cumulative impacts are identified, the scheduling of works will be coordinated with interacting projects to minimise potential impacts. This will include:</p> <ul style="list-style-type: none"> <li>Scheduling works to allow suitable respite periods for construction noise</li> <li>Scheduling of works to minimise consecutive construction noise impacts, where feasible</li> <li>Coordinating lane closures and pedestrian/cyclist diversions</li> <li>to minimise the overall number of occasions where disruption occurs.</li> </ul>	Transport for NSW Project Manager	Construction	Additional Measure

## 7.3 Licensing and approvals

All relevant licenses, permits, notifications and approvals needed for the Denmark Link Road Project and when they need to be obtained are listed in **Table 7-2**. Additional or changed licenses and approval requirements identified in this addendum REF are indicated by underlined and/or struck out font. As indicated in Table 7-2, no additional or changed licenses or approval requirements are required for the proposed modification.

Table 7-2: Summary of licensing and approval required.

Instrument	Requirement	Timing
<i>Roads Act 1993</i> (Section 138)	Road Occupancy Licence	Prior to start of activity.
<i>Heritage Act 1977</i> (Section 134)	Notification of the proposal to the Heritage Division, Department of Premier and Cabinet as part of an application for an exception under Section 134 of the <i>Heritage Act 1977</i> .	At commencement of project
<i>National Parks and Wildlife Act 1974</i>	Aboriginal Heritage Impact Permit under Section 90 of the <i>National Parks and Wildlife Act 1974</i> for the land and associated Aboriginal objects within the boundaries of the study area.	At commencement of project
<i>Blacktown City Council</i>	Blacktown City Council Land Access Deed	Prior to start of activity

## 8. Conclusion

### 8.1 Justification

The proposed modification is considered to be justified as the proposed changes to the design have been implemented to provide better outcomes for surface water drainage during the operational phase of the Denmark Link Road Project. Although some minor environmental impacts may result from the proposed modification, the impacts have been avoided or minimised where possible through the design and implementation of mitigation measures and safeguards summarised within **Section 7.2**.

The long-term benefit of the proposed modification is considered to compensate for the short-term, localised impacts which may arise during the construction phase. If a 'do-nothing' approach is adopted, there is potential for long-term, operational environmental impacts to occur which may result in environmental, reputational, and social implications. Economically, the proposed modification is considered feasible when compared to the potential costs associated with potential maintenance and defect rectification requirements.

### 8.2 Objects of the EP&A Act

Object	Comment
1.3(a) To promote the social and economic welfare of the community and a better environment by the proper management, development, and conservation of the State's natural and other resources.	The proposed modification will enhance the quality of the surrounding natural environment by improving surface water quality and drainage and minimising the potential for localised surface water stagnation.
1.3(b) To facilitate ecologically sustainable development by integrating relevant economic, environmental, and social considerations in decision-making about environmental planning and assessment.	The proposed modification is an approved approach under the project REF to manage project related surface water drainage. If elected, the outcome will improve surface water quality, is a cost-effective approach, and will have a positive contribution to the character of the surrounding landscape.
1.3I To promote the orderly and economic use and development of land.	The land-situated within the proposed development is currently vacant and possess features of a slightly to



Object	Comment
	moderately disturbed vegetation corridor. The proposed modification will enhance the current land-use by improving the quality and sustainability of the pre-existing drainage line and facilitating economic growth during the construction and maintenance of the modification.
1.3(d) To promote the delivery and maintenance of affordable housing.	Not relevant to the project.
1.3(e) To protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats.	Environmental protection is proposed to be managed through the incorporation of safeguards and management measures. A biodiversity assessment has determined that there is a low risk to local biodiversity values and potential impacts on both threatened and native species resulting from the proposed modification (refer to <i>Appendix F</i> ).
1.3(f) To promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage).	The potential impacts on aboriginal and non-aboriginal heritage have been assessed within an addendum heritage impact assessment. The potential impacts are proposed to be managed using the outlined mitigation measures and safeguards (refer to <b>Section 7.2</b> ).
1.3(g) To promote good design and amenity of the built environment.	The design of the proposed modification has been structured to provide a better solution for surface water drainage within the area which will contribute to the proper operational functionality of the culvert. The proposed design implements approved built elements which promotes consistency and improves character within the local environment.
1.3(h) To promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants.	Not relevant to the project.
1.3(i) To promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State.	Not relevant to the project.
1.3(j) To provide increased opportunity for community participation in environmental planning and assessment.	Community consultation was performed as part of the project REF.

## 8.3 Ecologically sustainable development

Ecological sustainable development (ESD) refers to the holistic approach to development which aims to improve the quality of life for present and future generations whilst simultaneously ensuring the long-term health and resilience of the natural environment. The principles of ESD have been incorporated and is an integral part of the proposed modification and the project REF. The primary principles of achieving ESD are articulated below.

### 8.3.1 The precautionary principle

The precautionary principle is a guiding approach in decision making process. The principle suggests if an action or policy has the potential to cause harm, and there is scientific uncertainty about the extent or nature of that harm, the precautionary approach advocates erring on the side of caution.

This principle was considered during project REF and the development of the proposed modification (refer to Chapter 2). The precautionary principle has steered the evaluation of environmental impacts in this assessment and the creation of measures to mitigate potential risks. A key focus has been minimising impacts on biodiversity and local aboriginal heritage values.

### 8.3.2 Intergenerational equity

Intergenerational equity is a principle which focuses on fairness and justice between different generations, particularly in the context of resource management, sustainability, and social policy. It calls for the responsible and sustainable stewardship of resources, the environment, and societal systems to prevent the environmental degradation and loss of resources for future generations.

The impacts of the proposed modification are considered to be short-term and can be managed under the proposed mitigation and safeguard measures. The potential benefits of the proposed modification are likely to include a reduction in localised flooding, a reduction in potential maintenance costs and the long-term preservation of local environmental values. The project REF has also outlined the benefits to road users and residents including reduced congestion, improved connectivity, and future planned social infrastructure under the West Schofield Draft Masterplan.

### 8.3.3 Conservation of biological diversity and ecological integrity

The principles of biodiversity conservation and ecological integrity have been considered during the design and assessment phases to identify, assess, avoid, minimise, and mitigate potential impacts. An addendum biodiversity impact assessment has outlined that the proposed modification is unlikely to have any significant biodiversity impacts.

### 8.3.4 Improved valuation, pricing, and incentive mechanisms

Improved valuation, pricing, and incentive mechanisms are essential components of effective environmental and resource management, particularly in the context of sustainable development and conservation efforts. Due to the inherent complexity with the environment, it is often difficult to accurately quantify the monetary value of long-term environmental and social consequences which may be affected by a project including water, air, land and living species. The proposed modification utilises pre-existing environmental investigations and the proposed mitigation and management measures to prevent environmental impacts.

## 8.4 Conclusion

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

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

A number of potential environmental impacts from the proposed modification have been avoided or reduced during the design development and options assessment. The proposed modification as described in the addendum REF best meets the project objectives but would still result in some minor impacts on biodiversity and potential short-term construction impacts such as dust, noise, and vibration. Safeguards and management measures as detailed in this addendum REF would ameliorate or minimise these expected impacts. The proposed modification would improve landscape character and visual amenity, increase surface water quality, and reduce potential structural defects and enhance the operational functionality of the Denmark Link Road culvert. On balance the proposed modification is considered justified, and the following conclusions are made.

### 8.4.1 Significance of impact under NSW legislation

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

### 8.4.2 Significance of impact under Australian legislation

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

## 9. Certification

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



Sul Ghani  
Environmental Coordinator  
Burtons Contracting Pty Ltd  
Date: 31/10/2023

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



Bhav Chawla  
Project Manager / Engineer  
Transport for NSW (Infrastructure and Place)  
Date: 31/10/2023

# 10. EP&A Regulation publication requirement

Respondent	Yes/No
Does this REF need to be published under section 171(4) of the EP&A Regulation?	Yes

## 11. Terms and acronyms used in this addendum REF

Term /acronym	Description
AusLink	Mechanism to facilitate cooperative transport planning and funding by Commonwealth and state and territory jurisdictions
BC Act	Biodiversity Conservation Act 2016 (NSW).
CEMP	Construction / Contractor's environmental management plan
DECWW	Department of Climate Change, Energy, the Environment and Water
EIA	Environmental impact assessment
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i> (NSW). Provides the legislative framework for land use planning and development assessment in NSW
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Commonwealth). Provides for the protection of the environment, especially matters of national environmental significance, and provides a national assessment and approvals process.
ESD	Ecologically sustainable development. Development which uses, conserves and enhances the resources of the community so that ecological processes on which life depends, are maintained and the total quality of life, now and in the future, can be increased
FM Act	Fisheries Management Act 1994 (NSW)
Heritage Act	Heritage Act 1977 (NSW)
LALC	Local Aboriginal Land Council
LEP	Local Environmental Plan. A type of planning instrument made under Part 3 of the EP&A Act.
LoS	Level of Service. A qualitative measure describing operational conditions within a traffic stream and their perception by motorists and/or passengers.
OEH	Office of Environmental Heritage
ONVMP	Operational Noise and Vibration Management Plan
NES	Matters of national environmental significance under the Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i> .
NPW Act	National Parks and Wildlife Act 1974 (NSW)
Roads and Maritime	NSW Roads and Maritime was dissolved by the Transport Administration Amendment Bill in August 2019, all function are now managed by Transport for NSW
REF	Review of Environmental Factors
SEPP	State Environmental Planning Policy. A type of planning instrument made under Part 3 of the EP&A Act.
SEPP (Biodiversity and Conservation)	State Environmental Planning Policy (Biodiversity and Conservation) 2021
SEPP (Planning Systems)	State Environmental Planning Policy (Planning Systems) 2021
SEPP (Precincts – Central River City)	State Environmental Planning Policy (Precincts – Central River City) 2021
SEPP (Precincts – Eastern Harbour City)	State Environmental Planning Policy (Precincts – Eastern Harbour City) 2021
SEPP (Precincts – Regional)	State Environmental Planning Policy (Precincts – Regional) 2021

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Term /acronym	Description
SEPP (Precincts – Western Parkland City)	State Environmental Planning Policy (Precincts – Western Parkland City) 2021
SEPP (Resilience and Hazards)	State Environmental Planning Policy (Resilience and Hazards) 2021
SEPP (Transport and Infrastructure)	State Environmental Planning Policy (Transport and Infrastructure) 2021
TSC Act	Threatened Species Conservation Act 1995 (NSW)
QA Specifications	Specifications developed by Roads and Maritime Services for use with road work and bridge work contracts let by Transport for NSW.



## 12. References

- Biodiversity Conservation Act 2016 (NSW).
- Burtons Contracting. (2023). Denmark Link Road – Construction Communications and Stakeholder Engagement Strategy. Dated 27/01/2023.
- Blacktown Local Environment Plan (LEP) 2015.
- Department of Environment, Climate Change and Water NSW [DECWW] (2010) Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales.
- Environmental Planning and Assessment Act 1979 (No. 203).
- Environment Protection and Biodiversity Conservation Act 1999.
- Environmental Planning and Assessment Regulation 2021.
- Fisheries Management Act 1994 (NSW).
- Heritage Act 1977 (NSW)
- MAC Muller Acoustic Consulting. (2020). Operational and Construction Noise and Vibration Assessment – Denmark Link Road Project Riverstone, NSW. Document Reference No. MAC201108-01RP1V1, dated 6 November 2020.
- National Parks and Wildlife Act 1974 (NSW).
- Landscape Architects & Urban Designers (2022). Urban Design and Landscape – Denmark Link Road from Garfield Road West, Riverstone to Westminster Street, Schofields. RMS Registration No. DS2021/000488, Sheet No. UD-0152.
- Office of Environmental Heritage [OEH]. (2011). Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales – Part 6 of the National parks and Wildlife Act 1974. State of NSW and the Department of Environment, Climate Change and Water NSW.
- State Environmental Planning Policy (State and Regional Development) 2011.
- State Environment Planning Policy (Biodiversity and Conservation) 2021.
- State Environmental Planning Policy (Precincts – Eastern Harbour City) 2021
- State Environmental Planning Policy (Transport and Infrastructure) 2021
- State Environmental Planning Policy (Planning Systems) 2021
- State Environmental Planning Policy (Regional) 2021
- State Environmental Planning Policy (Resilience and Hazards) 2021
- State Environmental Planning Policy (Western Parkland City) 2021
- State Environmental Planning Policy (Precincts – Central River City) 2021
- Sydney Regional Environmental Plan No. 20 – Hawkesbury-Nepean River (No 2 – 1997)
- State Environmental Planning Policy (Resilience and Hazards) 2021
- Transport for NSW. (2020). Denmark Link Road Review of Environmental Factors. Prepared by Western Sydney Project Office, Sydney Project Delivery Infrastructure & Place, dated 11 November 2020.
- Threatened Species Conservation Act 1995 (NSW).

# Appendix A

Figures



Addendum review of environmental factors

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# Appendix B

Consideration of section 171(2) factors and matters of National Environmental Significance and Commonwealth land

Addendum review of environmental factors

## Section 171(2) checklist

In addition to the requirements of the Is an EIS required? (1995/1996) guideline and the *Roads and Related Facilities EIS Guideline* (DUAP, 1996) as detailed in the addendum REF, the following factors, listed in section 171(2) of the Environmental Planning and Assessment Regulation 2021, have also been considered to assess the likely impacts of the proposed modification on the natural and built environment.

Factor	Impact
Any environmental impact on a community? The proposed modification would have a negligible impact on the local community outside the boundaries of the project REF. The project REF indicated a positive impact during the construction phase inclusive of noise and traffic disruption. Operational impacts such as local traffic flow would also be a likely result, however, the project would also result in an increase in local connectivity.	Short-term and long-term negative Long-term positive
Any transformation of a locality? The proposed modification is unlikely to have an impact on the surrounding locality outside the boundaries of the project REF. The project is likely to affect the locality to the south of Garfield Road West. The impact is likely attributed to possible planning instrument changes in the surrounding land-use within the medium to long term.	Short-term negative
Any environmental impact on the ecosystems of the locality? The proposed modification is considered to have a negligible impact on the local threatened and native flora and fauna, ecological communities, and their habitats. An independent biodiversity assessment was performed and outlined that the activity will not result in a 'significant impact' to the surrounding biodiversity values.	Negative (not significant)
Any reduction of the aesthetic, recreational, scientific, or other environmental quality or value of a locality? The proposed modification will unlikely cause a reduction of the local aesthetics and visual amenity outside the boundaries of the project REF such as a new road design. Following the completion of landscaping activities, the proposed modification may offer new habitat for local species and improve visual amenity by complementing the approved project design.	Short-term (construction) and negative long-term positive (operational)
Any effect on a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific, or social significance or other special value for present or future generations? The proposed modification is expected to have a direct impact on local architectural, cultural, historical or any other special or intrinsic values. The project has previously identified a potential heritage impact to Hebe Farm and a cultural impact to one local aboriginal site. Safeguards and mitigation measures were in place to address the potential impacts.	Short-term negative
Any impact on the habitat of protected fauna (within the meaning of the <i>National Parks and Wildlife Act 1974</i> )? The proposed modification may result in a minor impact to the habitat of local species within the short-term. The quality of the habitat is expected to improve following the completion of landscaping activities.	Nil
Any endangering of any species of animal, plant, or other form of life, whether living on land, in water or in the air? The proposed modification would not endanger animals, plants, or other forms of life.	Nil
Any long-term effects on the environment? The proposed modification would improve the connectivity for road users.	Nil
Any degradation of the quality of the environment? The proposed modification will not cause a degradation to the quality of the environment.	Nil
Any risk to the safety of the environment? The proposed modification will not represent a risk to the safety of the environment.	Nil

## Transport for NSW

Factor	Impact
Any reduction in the range of beneficial uses of the environment? The proposed modification will not reduce the range of beneficial re-uses of the environment.	Nil
Any pollution of the environment? No pollution of the environment is expected to be a direct result from the installation of the proposed modification subject to the implementation of the proposed safeguards and mitigation measures.	Nil
Any environmental problems associated with the disposal of waste? Any waste generated during the construction process would be removed from the site and disposed of at a licenced receiving facility. No environmental issues are expected to be attributed to the disposal of waste.	Nil
Any increased demands on resources (natural or otherwise) that are, or are likely to become, in short supply? The proposed modification would not result in the likely increase demand for resources which are or are expected to become in short supply.	Nil
Any cumulative environmental effect with other existing or likely future activities? The nature and scale of the proposed modification and its potential to have cumulative impacts are considered to be minimal. Any potential cumulative noise and traffic impacts associated development of the Riverstone West Precinct are considered manageable.	Short-term negative
Any impact on coastal processes and coastal hazards, including those under projected climate change conditions? The proposed modification is not within the coastal zone and would not influence coastal processes and/or coastal hazards.	Nil
Applicable local strategic planning statements, regional strategic plans or district strategic plans made under the Act, Division 3.1. The proposed modification is not subject to local strategic planning instruments, regional strategic plans or district plans made under the Act, Division 3.1.	Nil

## Matters of National Environmental Significance and Commonwealth land

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

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

Factor	Impact
Any impact on a World Heritage property? The proposed modification would not have an impact on a World Heritage property.	Nil
Any impact on a National Heritage place? The proposed modification would not have any impact on a National Heritage Place.	Nil
Any impact on a wetland of international importance? The proposed modification would not affect a wetland of international importance.	Nil
Any impact on a listed threatened species or communities? Some Commonwealth listed threatened species have the potential to occur in the local area. The nature, scale and location of the proposal is such that direct impacts on these species or their habitats are not expected. Indirect impacts are also not expected.	Not significant
Any impacts on listed migratory species? Some Commonwealth listed migratory species have the potential to occur in the local area. The nature, scale, and location of the proposed modification on these species, or their habitats are not expected. Indirect impacts are also not expected.	Nil
Any impact on a Commonwealth marine area? The proposed modification would not result in an impact on a Commonwealth marine area.	Nil
Does the proposed modification involve a nuclear action (including uranium mining)? The proposed modification does not involve a nuclear action.	Nil
Additionally, any impact (direct or indirect) on Commonwealth land? The proposed modification would not impact Commonwealth Land.	Nil



# Appendix C

Statutory consultation checklists

## Matters of National Environmental Significance and Commonwealth land

### Certain development types

Development type	Description	Yes / No	If 'yes' consult with	SEPP (Transport and Infrastructure) section
Car park	Does the project include a car park intended for the use by commuters using regular bus services?	No	-	Section 2.110
Bus depots	Does the project propose a bus depot?	No	-	Section 2.110
Permanent road maintenance depot and associated infrastructure	Does the project propose a permanent road maintenance depot or associated infrastructure such as garages, sheds, tool houses, storage yards, training facilities and workers' amenities?	No	-	Section 2.110

### Development within the Coastal Zone

Issue	Description	Yes / No / N/A	If 'yes' consult with	SEPP (Transport and Infrastructure) section
Development with impacts on certain land within the coastal zone	Is the proposal within a coastal vulnerability area and is inconsistent with a certified coastal management program applying to that land?	No	-	Section 2.14

## Transport for NSW

### Council related infrastructure or services

Development type	Potential impact	Yes / No	If 'yes' consult with the relevant local council(s).	SEPP (Transport and Infrastructure) section
Stormwater	Are the works likely to have a substantial impact on the stormwater management services which are provided by council?	No	-	Section 2.10
Traffic	Are the works likely to generate traffic to an extent that will strain the capacity of the existing road system in a local government area?	No	-	Section 2.10
Sewerage system	Will the works involve connection to a council owned sewerage system? If so, will this connection have a substantial impact on the capacity of any part of the system?	No	-	Section 2.10
Water usage	Will the works involve connection to a council owned water supply system? If so, will this require the use of a substantial volume of water?	No	-	Section 2.10
Temporary structures	Will the works involve the installation of a temporary structure on, or the enclosing of, a public place which is under local council management or control? If so, will this cause more than a minor or inconsequential disruption to pedestrian or vehicular flow?	No	Blacktown City Council	Section 2.10
Road and footpath excavation	Will the works involve more than minor or inconsequential excavation of a road or adjacent footpath for which council is the roads authority and responsible for maintenance?	No	Blacktown City Council	Section 2.10

### Local heritage items

Development type	Potential impact	Yes / No	If 'yes' consult with the relevant local council(s).	SEPP (Transport and Infrastructure) section
Local heritage	Is there is a local heritage item (that is not also a State heritage item) or a heritage conservation area in the study area for the works? If yes, does a heritage assessment indicate that the potential impacts to the heritage significance of the item/area are more than minor or inconsequential?	No	Blacktown City Council	Section 2.11

### Flood liable land

Development type	Potential impact	Yes / No	If 'yes' consult with	SEPP (Transport and Infrastructure) section
Flood liable land	Are the works located on flood liable land? If so, will the works change flood patterns to more than a minor extent?	No	Blacktown City Council	Section 2.12
Flood land	Are the works located on flood liable land? (to any extent). If so, do the works comprise more than	No	State Emergency Services	Section 2.13

## Transport for NSW

Development type	Potential impact	Yes / No	If 'yes' consult with	SEPP (Transport and Infrastructure) section
	minor alterations or additions to, or the demolition of, a building, emergency works or routine maintenance		Email: <a href="mailto:erm@ses.nsw.gov.au">erm@ses.nsw.gov.au</a>	

### Public authorities other than councils

Development type	Potential impact	Yes / No	If 'yes' consult with the relevant local council(s).	SEPP (Transport and Infrastructure) section
National parks and reserves	Are the works adjacent to a national park or nature reserve, or other area reserved under the <i>National Parks and Wildlife Act 1974</i> , or on land acquired under that Act?	No	NSW Department of Planning and Environment	Section 2.15
National parks and reserves	Are the works on land in Zone E1 National Parks and Nature Reserves or in a land use zone equivalent to that zone?	No	NSW Department of Planning and Environment	Section 2.15
Aquatic reserves and marine parks	Are the works adjacent to an aquatic reserve or a marine park declared under the <i>Marine Estate Management Act 2014</i> ?	No	Department of Industry	Section 2.15
Sydney Harbour foreshore	Are the works in the Sydney Harbour Foreshore Area as defined by the <i>Sydney Harbour Foreshore Authority Act 1998</i> ?	No	Sydney Harbour Foreshore Authority	Section 2.15
Bush fire prone land	Are the works for the purpose of residential development, an educational establishment, a health services facility, a correctional centre or group home in bush fire prone land?	No	Rural Fire Service	Section 2.15
Artificial light	Would the works increase the amount of artificial light in the night sky and that is on land within the dark sky region as identified on the dark sky region map? (Note: the dark sky region is within 200 kilometres of the Siding Spring Observatory)	No	Director of the Siding Spring Observatory	Section 2.15
Defence communications buffer land	Are the works on buffer land around the defence communications facility near Morundah? (Note: refer to Defence Communications Facility Buffer Map referred to in section 5.15 of Lockhart LEP 2012, Narrandera LEP 2013 and Urana LEP 2011).	No	Secretary of the Commonwealth Department of Defence	Section 2.15
Mine subsidence land	Are the works on land in a mine subsidence district within the meaning of the <i>Mine Subsidence Compensation Act 1961</i> ?	No	Mine Subsidence Board	Section 2.15

Transport  
for NSW

Development type	Potential impact	Yes / No	If 'yes' consult with the relevant local council(s).	SEPP (Transport and Infrastructure) section
Clearing native vegetation	Do the works involve clearing native vegetation (as defined in the <i>Local Land Services Act 2013</i> ) on land that is not subject land (as defined in cl 17 of schedule 7 of the <i>Threatened Species Conservation Act 1995</i> )?	No	Department of Planning and Environment	Section 3.24

# Appendix D

Neutral or beneficial effect on water quality assessment

## Neutral or beneficial effect assessment

Chapter 8 (Sydney Water Drinking Catchment) of SEPP (Biodiversity and Conservation) relates to the use of land within the Sydney drinking water catchment. In accordance with Section 8.11 of the SEPP, Transport for NSW is required to consider whether or not an activity to which Division 5.1 of the EP&A Act applies will have a neutral or beneficial effect on water quality before carrying out the activity.

Factor		Impact
1	Are there any identifiable potential impacts on water quality?  What pollutants are likely?  During construction and/or post construction?	The proposed modification will not affect the water quality of the surrounding catchment area and hence no further assessment is considered warranted.
2	For each pollutant, list the safeguards needed to prevent or mitigate potential impacts on water quality (these may be DPE Water endorsed current recommended practices and/or equally effective other practices)	-
3	Will the safeguards be adequate for the time required? How will they need to be maintained?	-
4	Will all impacts on water quality be effectively contained on the site by the identified safeguards (above) and not reach any watercourse, waterbody or drainage depression?  Or will impacts on water quality be transferred outside the site for treatment? How? Why?	-
5	Is it likely that a neutral or beneficial effect on water quality will occur? Why?	The proposed modification is expected to improve local water quality within the long-term by improving surface water flow and reducing potential pollutant accumulation through vegetation traps.



## Appendix E

Addendum Biodiversity Assessment / Pre-Clearing Survey

Andrew Hunt  
Environmental  
Coordinator Burton  
Contractors Pty Ltd



31<sup>st</sup> October 2023

### Biodiversity Memo: Additional Culvert Tie-In for the Denmark Link Project

Dear Andrew,

Thank you for engaging East Coast Ecology Pty Ltd (ECE) to assess the level of potential impact to biodiversity associated with the proposed additional culvert tie-in (referred to as the 'activity') for the Denmark Link Road Project. This biodiversity memo has been developed to support an addendum Review of Environmental Factors (REF) prepared by Burton Contractors (BC).

The purpose of this biodiversity memo is to:

- Summarise the potential biodiversity impacts of the activity and outline mitigation strategies that would be implemented during the work, and
- Assist TfNSW with a determination of whether the proposed impacts are consistent with the Review of Environmental Factors (REF) (TfNSW, 2020).

East Coast Ecology understand that the activity will necessitate the clearing of vegetation to enable functioning drainage away from the roadside, where it is currently pooling. This section of the activity area is mapped as 'non-certified' under the State Environmental Planning Policy (SEPP) (Precincts - Western Parkland City) 2021. A detailed methodology, including sequence of work, duration and equipment, working hours and traffic will be provided in the REF addendum to be prepared by BC.

It is expected that the activity will impact the following Endangered Ecological Community listed under the *Biodiversity Conservation Act 1999* (NSW) (BC Act):

- 0.01ha of Freshwater wetlands on coastal floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions (PCT 3962).

Plant Community Type 3962 is associated with Freshwater Wetlands on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions – endangered ecological community. No impacts to threatened flora or fauna and their habitats will occur. The potential biodiversity impacts from the activity are described in **Table 1**.

Potential impacts from the activity have been considered with reference to the addendum REF (BC, 2023). Moreover, these aforementioned documents have been reviewed to identify a number of mitigation measures, safeguards and management strategies to be implemented in order to avoid or minimise adverse biodiversity impacts that could potentially arise as a result of the activity. These measures are

described in **Table 2**. Subject to the implementation of management measures, the activity is expected to have a negligible impact to biodiversity.

The proposed activity will not result in a 'significant impact' on any threatened entities and therefore the Biodiversity Offset Scheme is not triggered (**Appendix B**). As such, a Species Impact Statement (SIS) or a Biodiversity Development Assessment Report (BDAR) is not required. The Subject Land is not located within any Areas of Outstanding Biodiversity Value. The proposed activity will not result in a 'significant impact' on any MNES and a referral to the Australian Government Minister for the Environment is not required.

If you have any queries, please feel free to contact me.

Sincerely,



**Alex Graham**

Director/ Principal Ecologist - Accredited Biodiversity Assessor (BAAS19040)

E: alex.graham@ececology.com.au

Table 1. Biodiversity impacts from the proposed work.

Biodiversity Aspect	Potential Impacts
Clearing of Native Vegetation	<p>A review of the area to be impacted by the activity has identified the potential for impact on one Threatened Ecological Community (TEC):</p> <ul style="list-style-type: none"> <li>0.01ha of Freshwater wetlands on coastal floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions (PCT 3962).</li> </ul> <p>Within the activity area, this vegetation is co-dominated by <i>Carex appressa</i> and <i>Typhya orientalis</i>. <b>Figure 2</b> shows the extent of TEC vegetation clearing by PCT. Representative photos of the proposed activity area are provided in <b>Appendix A</b>.</p> <p>The cumulative total impact to TECs for the Denmark Link Road Project (incl. proposed activity) includes:</p> <ul style="list-style-type: none"> <li>1.403 hectares, comprising: <ul style="list-style-type: none"> <li>0.753 hectares of Cumberland Plain Woodland (CEEC)</li> <li>0.64 hectares of River-flat Eucalypt Forest (EEC)</li> <li>0.01 hectares of Freshwater Wetlands on Coastal Floodplains (EEC).</li> </ul> </li> </ul> <p>With reference to Table 1, within Section 4.2 of the Guideline for Biodiversity Offsets (Roads and Maritime Services, 2016) it is noted the proposed activity would not result in impacts to greater than 5 hectares of a NSW endangered or vulnerable ecological community OR any clearing of a CEEC in moderate to good condition, therefore the Transport's Offsetting thresholds for REFs do not apply. The proposed activity would not result in the clearing of 'existing native vegetation' in non-biocertified areas, therefore the total cumulative amount of 'existing native vegetation' that would be removed by the Denmark Link Road Project remains 0.72ha.</p>
	<p>The REF (TfNSW, 2020) indicated the project will impact habitats that could be used by threatened fauna. A review of the area to be impacted by the activity has identified the potential for impact on two habitat types. These include:</p> <ul style="list-style-type: none"> <li>Rivers and streams</li> <li>Freshwater wetlands</li> </ul> <p>An assessment of the area to be impacted by the activity has identified that no impacts to threatened flora, threatened fauna or their habitats will occur.</p>
Fauna injury and mortality	<p>The majority of fauna species known to occur in, or in proximity to the construction footprint are highly mobile bird and mammal species that are likely to be able to move away from these types of activities quite readily. Species that are not highly mobile include frogs. If unmanaged there is potential that terrestrial fauna injury or mortality would occur as a result of the activity (particularly during the excavation of excess sediment from within the waterbody).</p>

Table 2. Summary of mitigation measures to avoid and minimise adverse impacts to biodiversity.

Biodiversity Control	Responsibility
The limits of clearing and exclusion zones within the impacted area will be clearly delineated prior to clearing commencement using exclusion fencing, barriers, or appropriate signage identified on-site construction drawings, and communicated to clearing contractors.	Burton Contractors
No excavation, placing of fill or construction of access tracks within the canopy line of native trees identified to be retained will occur unless an ecologist or arborist completes an assessment that confirms no detrimental effect, resulting in death or long-term damage to tree health is likely to occur.	Burton Contractors
Weeds within the construction footprint will be managed in accordance with the Weed and Pathogen Control Procedure and the Roads and Maritime Biodiversity Guidelines (RTA, 2011).	Burton Contractors
Measures to prevent the introduction and/ or spread of pests, pathogens, and disease-causing agents such as bacteria and fungi will be managed in accordance with the Commonwealth <i>Biosecurity Act 2015</i> and the NSW <i>Biosecurity Act 2015</i> .	Burton Contractors
The clearing of native vegetation will be minimised with the objective of reducing impacts to threatened species, threatened species habitat and ecological communities.	Burton Contractors
Aquatic habitat will be protected in accordance with Guide 10: Aquatic habitats and riparian zones of the 'Biodiversity Guidelines: protecting and managing biodiversity on RTA projects' (RTA 2011).	Burton Contractors
The pre-clearing, vegetation and habitat removal process will be developed and implemented in accordance with Roads and Maritime Biodiversity Guidelines: Protecting and Managing Biodiversity on RTA projects (RTA, 2011).	Project Ecologist
Any fauna encountered during construction will be handled by the Project Ecologist in accordance with the Roads and Maritime Biodiversity Guidelines (RTA, 2011). Relocation of native fauna captured during vegetation clearing will be undertaken by the Project Ecologist and released into a suitable nearby location identified as such by the Project Ecologist.	Project Ecologist



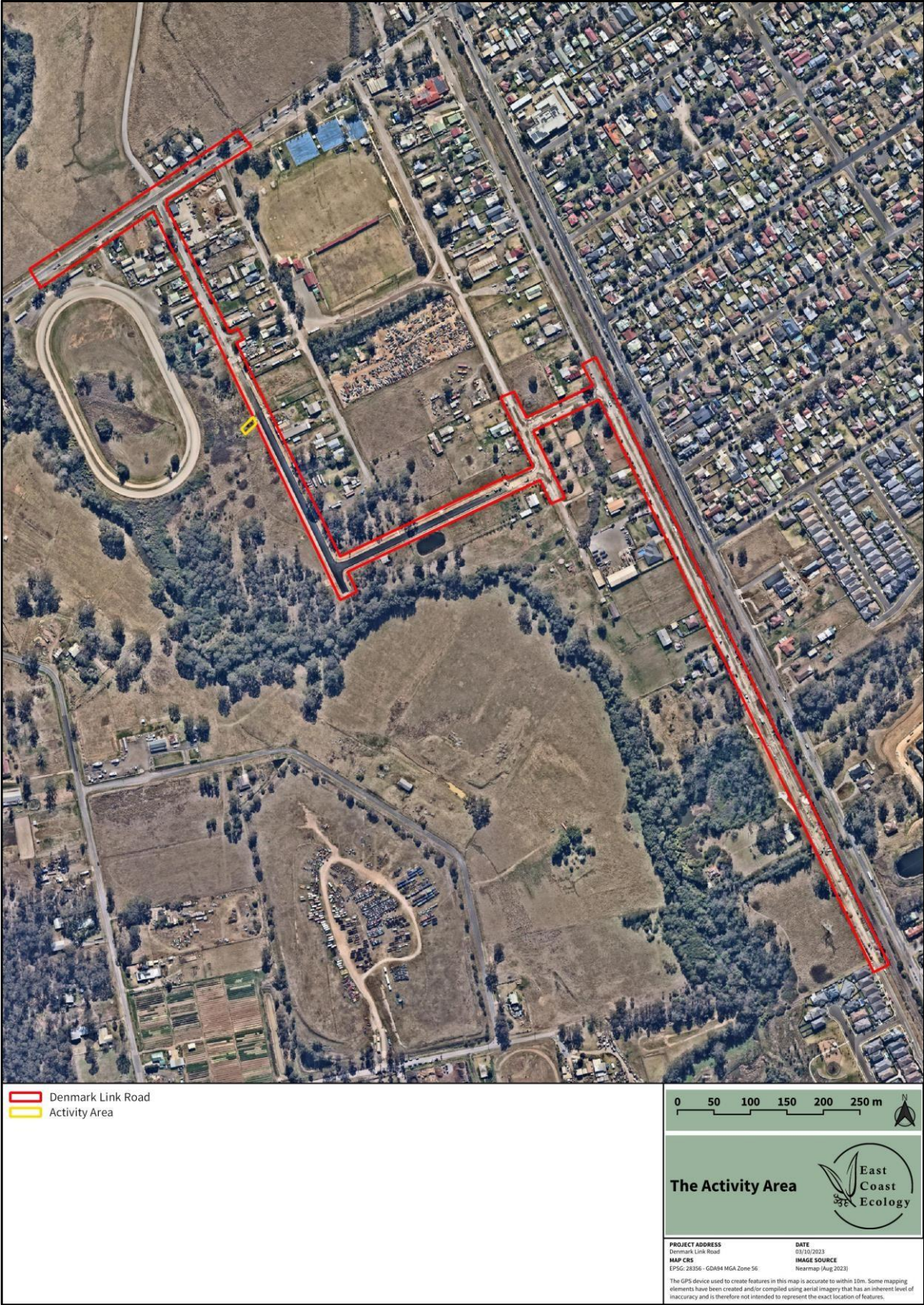


Figure 1. The Activity Area.





Figure 2. Proposed impact to Plant Community Types.



Appendix A. Photographs of the Activity Area.



Plate 1. The patch of native vegetation (*Carex appressa*) to be impacted by the activity.



Plate 2. Pooling water (foreground), and vegetation within stream (background).



Appendix B. 5-Part Tests (Tests of Significance).

<b>Biodiversity Conservation Act 2016 – Test of Significance (5-part Test) for Freshwater wetlands on coastal floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions</b>		
BC Act Status: Endangered		
<p><b>(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,</b></p>	Not Applicable.	
	<p><b>(i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or</b></p>	<p>No. The activity is unlikely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction.</p> <p>In total approximately 0.01ha of this TEC will require removal, from a larger patch adjoining Eastern Creek. The species to be removed (<i>Carex spp.</i>, <i>Juncus spp.</i>, and <i>Typha spp.</i>) will naturally regenerate once the stream has been reshaped.</p>
<p><b>(b) in the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:</b></p>		<p>The proposed action is not likely to substantially and adversely modify the</p>



	<b>(ii) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction,</b>	composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.  This TEC is well represented in the surrounding landscape, as are all individual species that comprise the TEC within the
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<b><i>Biodiversity Conservation Act 2016 – Test of Significance (5-part Test) for Freshwater wetlands on coastal floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions</i></b>		
<b>BC Act Status: Endangered</b>		
		activity area. All species will continue to be represented within the local occurrence following the activity.
<b>(c) in relation to the habitat of a threatened species or ecological community:</b>	<b>(i) the extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and</b>	The proposed activity will require the removal of approximately 0.01ha of this TEC which constitutes a minor proportion of the total local occurrence.  While all habitat is important, the extent of this TEC within the Subject Land is weed infested, and has likely been subject to historical clearing (based on historical imagery).
	<b>(ii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed</b>	The proposed activity will not fragment this TEC. As the activity only involves minor grubbing adjoining the Denmark Link Project to increase the function of the stream (currently pooling on road edge), no fragmentation is expected to occur. It is also anticipated that this community

	<b>development or activity, and</b>	will regenerate within the activity area following completion of the works.
	<b>(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,</b>	<p>All areas which support viable patches are important. The patches required for removal are already degraded from historic land clearing.</p> <p>Superior habitat will continue to persist in the broader locality.</p>

<b>Biodiversity Conservation Act 2016 – Test of Significance (5-part Test) for Freshwater wetlands on coastal floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions</b>	
<b>BC Act Status: Endangered</b>	
<b>(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),</b>	The activity proposed is not likely to have an adverse effect on any declared area of critical habitat, directly or indirectly.
<b>(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.</b>	<p>The following Key Threatening Processes (KTPs) are documented to impact upon the survival of the ecological community:</p> <ul style="list-style-type: none"><li>• Clearing of native vegetation.</li></ul> <p>The proposed activity will require the removal of approximately 0.01ha of this TEC which constitutes a minor proportion of the total local occurrence.</p>

**Conclusion**

There will be no significant impact on the ecological community therefore the proposed action should not warrant the producing of a Species Impact Statement (SIS) or Biodiversity Development Assessment Report (BDAR).



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Greater Sydney | South Coast | Central Coast



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12 September 2023

Bhav Chawla  
Project  
Engineer  
Central and Southern Sydney Project Office  
Infrastructure and Place  
Transport for  
NSW 27 Argyle  
Street  
Parramatta NSW 2150

## 13. RE. DENMARK LINK ROAD CULVERT DRAINAGE WORKS

### ASSESSMENT OF IMPACT ON ABORIGINAL ARCHAEOLOGICAL HERITAGE

Transport for NSW (Transport) are undertaking the construction of a new link road between Garfield Road West, Riverstone and the Westminster Street Bridge, Schofields in north western Sydney, NSW. The project is known as the Denmark Link Road. This new link road would alleviate traffic congestion along Garfield Road West around the railway level crossing at Riverstone and would provide an alternate local connection for light vehicles to cross the Richmond railway line, to avoid the Riverstone town centre.

## 14. Impact Assessment

The construction of culvert drainage works is required to assist the Denmark Link Road project. The drainage works extend outside of the existing REF approved boundary (Figure 1). Kelleher Nightingale Consulting Pty Ltd (KNC) was engaged by Transport to undertake an Aboriginal archaeological heritage impact assessment for the proposed drainage works.

## 15. Existing Aboriginal heritage assessment

The Denmark Link Road project has been previously assessed for Aboriginal archaeological heritage during PACHCI Stage 2 and PACHCI Stage 3 investigations to inform the project REF :

KNC, 2017. *Denmark Link Road, Riverstone. Aboriginal Archaeological Survey Report - Stage 2 PACHCI*. Report prepared for Element Environment on behalf of Roads and Maritime Services.

KNC, 2021. *Denmark Link Road, Riverstone, Cultural Heritage Assessment Report - Stage 3 PACHCI*. Report prepared for Transport for NSW.

The Aboriginal heritage assessment for the proposed drainage works used the identified PACHCI Stage 3 (KNC 2021) Aboriginal heritage site data for the project as a basis for the review. Identified Aboriginal heritage sites for the project as documented in the PACHCI Stage 3 are shown in Figure 1.

## 16. AHIMS Database Search

An updated search of the Heritage NSW Aboriginal Heritage Information Management System (AHIMS) database was completed to confirm the location and status of any recorded Aboriginal archaeological sites in the vicinity of the proposed drainage works. Search results are attached as Appendix A. The updated AHIMS search confirmed that no previously recorded sites are located within the proposed culvert drainage work area.

## 17. Visual Inspection

A visual inspection of the proposed drainage works was undertaken by KNC senior archaeologist Tristram Miller on 11 September 2023. The proposed work location was inspected and assessed on foot. No Aboriginal objects, archaeological sites or areas of Aboriginal archaeological potential were identified, with the existing drainage corridor assessed as displaying low archaeological potential due to relative low lying nature of the land.

## 18. Result

No Aboriginal archaeological objects will be impacted by the proposed culvert drainage work.

## 19. Summary

It can be reasonably determined based on the finding of existing assessments (PACHCI Stage 2 and 3), updated AHIMS database search and visual inspection that no Aboriginal objects would be harmed by the proposed drainage works and according to the Heritage NSW *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales*, the proposed works may proceed with caution.

If you have any questions or require further information, please do not hesitate to contact me on (02) 92325373 or email [Matthew.Kelleher@knconsult.com.au](mailto:Matthew.Kelleher@knconsult.com.au)

Yours sincerely,



Dr Matthew Kelleher  
Director/Archaeologist

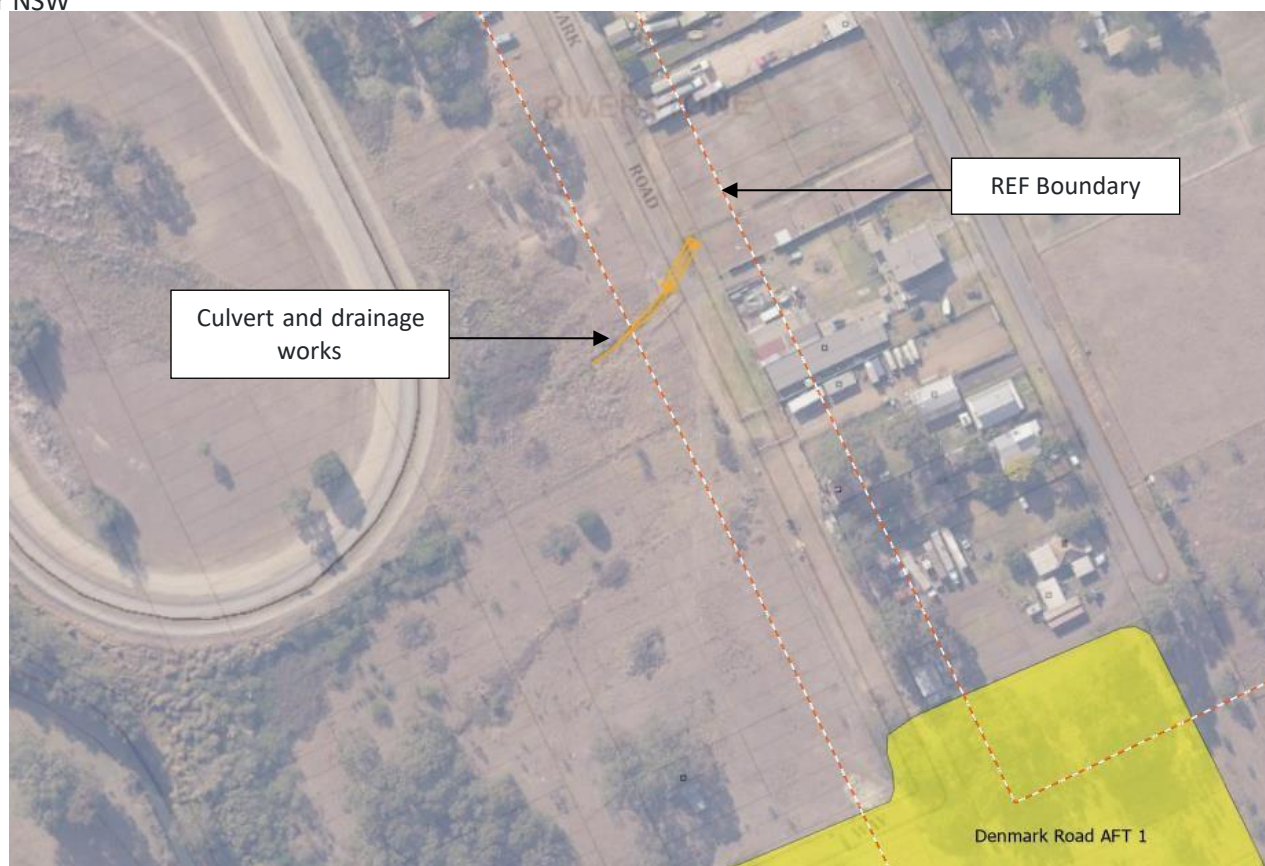


Figure 1. The location of the proposed culvert and drainage works in relation to Aboriginal archaeological site –

#### Denmark Road AFT 1





Figure 2. The location of the proposed drainage works facing south west.





Your Ref/PO Number : Denmark Rd Culvert  
Client Service ID : 818993

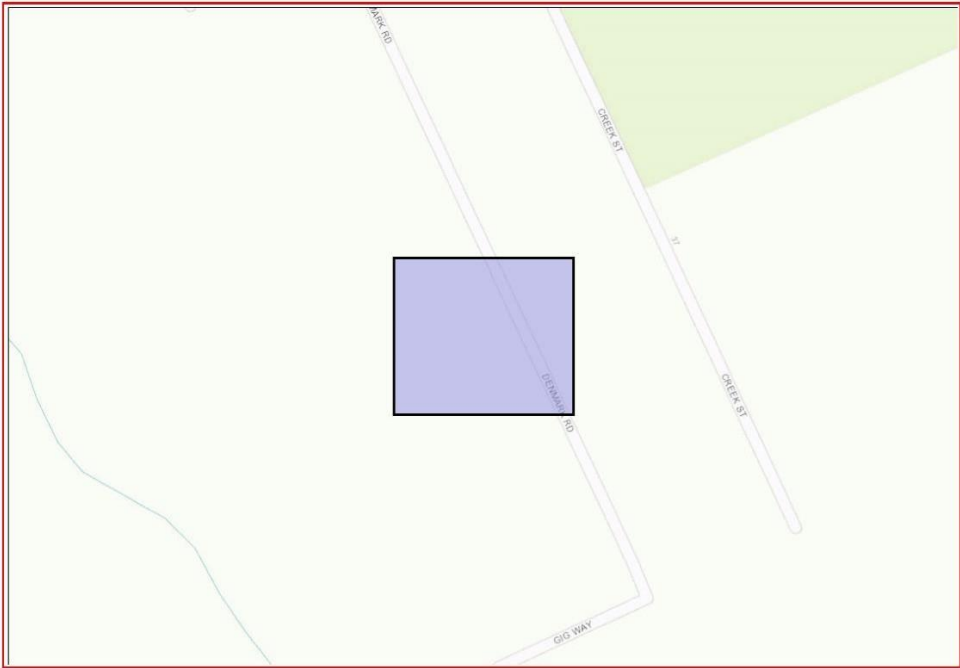
Kelleher Nightingale Consulting Pty Ltd (Generic users)  
Kelleher Nightingale Consulting Pty Ltd Level 10, 25 Blight Street  
Sydney New South Wales 2000  
Attention: Matthew Kelleher  
Email: knc.ahims@gmail.com

Date: 12 September 2023

Dear Sir or Madam:

**AHIMS Web Service search for the following area at Datum :GDA, Zone : 56, Eastings : 301369.0 - 301473.0, Northings : 6270673.0 - 6270764.0 with a Buffer of 0 meters, conducted by Matthew Kelleher on 12 September 2023.**

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

0	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *

**If your search shows Aboriginal sites or places what should you do?**

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the [NSW Government Gazette](https://www.legislation.nsw.gov.au/gazette) (<https://www.legislation.nsw.gov.au/gazette>) website. Gazettal notices published prior to 2001 can be obtained from Heritage NSW upon request

**Important information about your AHIMS search**

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not to be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Heritage NSW and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date. Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.

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Level 6, 10 Valentine Ave, Parramatta 2150  
Locked Bag 5020 Parramatta NSW 2124  
Tel: (02) 9585 6345

ABN 34 945 244 274  
Email: [ahims@environment.nsw.gov.au](mailto:ahims@environment.nsw.gov.au)  
Web: [www.heritage.nsw.gov.au](http://www.heritage.nsw.gov.au)

## Appendix G

Blacktown City Council Access Deed



### Deed of Licence

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BETWEEN

**Blacktown City Council**  
(Council)

AND

**Transport for NSW (TfNSW)**  
(Licensee)

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Licensed Area:	Lot 16, Sec 13, DP 1485 Denmark Street, Riverstone
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Prepared by:

**Mary Macken**  
Executive Corporate Counsel

Phone: 02 9839 6954

Email: [Mary.Macken@blacktown.nsw.gov.au](mailto:Mary.Macken@blacktown.nsw.gov.au)

## Contents

<b>Parties</b>	<b>4</b>
<b>Background</b>	<b>4</b>
<b>Operative Provisions</b>	<b>4</b>
<b>1 Definitions and Interpretation</b>	<b>4</b>
1.1 Definitions	4
1.2 Interpretation	5
1.3 No Fettering of Discretion	5
<b>2 Licence</b>	<b>6</b>
2.1 Grant of Licence	6
2.2 No Exclusive Possession	6
2.3 Restrictions on Use	6
<b>3 Conditions of Use</b>	<b>6</b>
3.1 Obligations of Licensee	6
3.2 Hours of Use	7
<b>4 Risk, Indemnity, and Insurance</b>	<b>7</b>
4.1 Own Risk	7
4.2 Indemnity	7
4.3 Insurance	7
<b>5 Default and Termination</b>	<b>8</b>
5.1 Default by Licensee	8
<b>6 End of Term Obligations</b>	<b>8</b>
6.1 Make Good	8
6.2 Restoration of Licensed Area	8
<b>7 Fencing and Alterations</b>	<b>9</b>
7.1 Fencing on site	9
<b>8 Contracting</b>	<b>9</b>
<b>9 General</b>	<b>9</b>
9.1 Governing Law and Jurisdiction	9
9.2 Counterparts	10
9.3 Legal Costs	10
9.4 Variations and Amendments	10
9.5 Further Steps	10

9.6 Waiver	10
9.7 Severability	10
9.8 Notices	10
<b>Schedule</b>	<b>12</b>
<b>Execution</b>	<b>13</b>
<b>Annexure A – Works</b>	<b>14</b>
<b>Annexure B – Aerial</b>	<b>15</b>

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Date 26 / 10 2023

## 20. Parties

BETWEEN: Blacktown City Council (ABN 18 153 831 768) (**Council**)  
of 62 Flushcombe Road, Blacktown NSW 2148  
AND: Transport for NSW (TfNSW) (ABN 18 804 239 602) (**Licensee**)

## 21. Background

- A. Council is the owner of the Property upon which the Licensed Area is located.
- B. The Licensee wishes to have access to or over the Licensed Area for the Purpose and in the course of carrying out the Works on the Licensed Area.
- C. Council will grant the Licensee access to or over the Licensed Area under licence subject to the terms and conditions set out in this Deed.

## 22. Operative Provisions

### 1 Definitions and Interpretation

#### 1.1 Definitions

In this Deed unless the context otherwise requires:

**Commencement Date** means the date specified in Item 4 of the Schedule.

**Contractor** means persons appointed directly by the Licensee to exercise any rights or perform any obligations of the Licensee under this Deed, including to complete all or part of the Works.

**Licensee's Agents** means any agent, employee, contractor, subcontractor and invitee of the Licensee.

**Licensee's Land** means the whole of the land described in Item 3 of the Schedule.

**Licensed Area** means the area described in Item 2 of the Schedule.

**Property** means the whole of the land described in Item 1 of the Schedule.

**Purpose** means the purpose for which access is granted as set out in Item 7 of the Schedule.

**Schedule** means the schedule to this Deed.

**Termination Date** means the date specified in Item 5 of the Schedule.

**Works** means the construction of a swale drain, associated with new culvert work for the water to flow.

## 1.2 Interpretation

In this Deed unless the contrary intention appears:

- (i) a reference to this Deed or another instrument includes any variation or replacement of either of them;
- (ii) the singular includes the plural and vice versa;
- (iii) the word person includes a firm, a body corporate, an unincorporated association, trust, trustee, government of statutory body or an authority;
- (iv) an agreement, warranty or representation in favour of two or more persons is for the benefit of them severally;
- (v) an agreement, warranty or representation on the part of two or more persons binds them severally;
- (vi) the words “includes” or “including”, “for example” or “such as” are not words of limitation;
- (vii) headings are inserted for convenience and do not affect the interpretation of this Deed; and
- (viii) a reference to:
  - (A) “\$” or “dollars” is a reference to Australian currency;
  - (B) time is the local time in Sydney;
  - (C) person includes a reference to the person’s executors, administrators, successors, substitutes (including, but not limited to, persons taking by novation) and assigns;
  - (D) a statute, ordinance, code or other law includes regulations and other instruments under it and consolidations, amendments, re-enactments or replacements of any of them; and
  - (E) a clause, schedule, annexure or appendix is a reference to a clause of or schedule, annexure or appendix to this Deed and references to this Deed include any recitals, schedule, annexure or appendix.



### 1.3 No Fettering of Discretion

Nothing in this Deed operates to restrict or otherwise affect the duty and performance by the Council of its obligations under the Housing Act 2001(NSW) or as a statutory authority.

---

## 2 Licence

### 2.1 Grant of Licence

Subject to the terms and conditions of this Deed, Council grants and the Licensee accepts a non-exclusive licence to have access for the purpose of Works to or over the Licensed Area on and from the Commencement Date until the Termination Date.

### 2.2 No Exclusive Possession

- (i) This Deed does not confer on the Licensee any right of exclusive possession of any part of the Licensed Area or the Property, however, Council must not permit access or use of, or grant a right of access or use to a third party of, the Licensed Area from the Commencement Date until the Termination Date (except in an emergency situation, acting reasonably) which may interfere with the Purpose.
- (ii) The rights conferred on the Licensee by this Deed are personal rights in contract only and do not create any tenancy or any estate or interest in the Licensed Area or Property.

### 2.3 Restrictions on Use

- (i) The Licensee and the Licensee's Agents must:
  - (A) Only use the Licensed Area for the Purpose;
  - (B) Ensure that all parts of the Licensee's property, materials, vehicles, plant and equipment remain strictly within the Licensed Area; and
  - (C) Not store any contaminant material on the Property.

---

## 3 Conditions of Use

### 3.1 Obligations of Licensee

The Licensee and the Licensee's Agents must:

- (i) comply with Council's rules and regulations;
- (ii) comply with all laws, regulations and requirements of authorities in connection with the use of the Licensed Area;
- (iii) not to interfere with any trees in or about the Licensed Area or the Property during the Works;
- (iv) maintain and keep the Licensed Area clean and tidy having regard to the nature of the Purpose;
- (v) not do anything which might endanger the Licensed Area or the Property or anything in the Licensed Area or the Property or any person on the Licensed Area or the

Property;

- (vi) not do anything that is a nuisance or annoyance to the owners or occupiers of neighbouring properties, acting reasonably having regard to the nature of the Works.
- (vii) pay or reimburse Council, any charges resulting from the Licensee's access to or over the Licensed Area.

### 3.2 Hours of Use

The Licensee and the Licensee's Agents must only access the Licensed Area on the days and between the hours specified in Item 6 of the Schedule.

---

## 4 Risk, Indemnity, and Insurance

### 4.1 Own Risk

- (i) The Licensee and Licensee's Agents enter the Property and Licensed Area at their own risk.
- (ii) Council shall not be responsible for any theft of any property whilst on the Licensed Area or Property or of any property left or contained therein.

### 4.2 Indemnity

The Licensee indemnifies and must keep Council indemnified against all claims, demands, proceedings, liabilities, costs and expenses, loss or damage to property, death or injury to persons occurring in, on or at the Property and Licensed Area that is brought against the Licensee arising from or in connection with:

- (i) the Licensee's access to or over the Licensed Area or Property;
- (ii) the Licensed Area being used for the Purpose;
- (iii) anything caused or contributed to by the omission, negligence or default of the Licensee or Licensee's Agents; and/or
- (iv) the Licensee's breach under this Deed,

except to the extent that such claim, demand, proceeding, liability, cost and expense, loss or damage to property, death or injury is caused or contributed to by the act, omission or

negligence of Council or its contractors, employees, agents or invitees.

### 4.3 Insurance

- (i) If insurance is effected by the Licensee, or by any contractor, in relation to the effecting of the Purpose, the Licensee must use its best endeavours to ensure that that insurance, so far as is appropriate, extends to the acts or omissions of the Licensee or by any person authorised by the Licensee in exercise of the access granted by this Deed.

- (ii) The Licensee must not do anything that could:
  - (A) prejudice any insurance taken out by Council for the Property, the LicensedArea or any property within them; or
  - (B) increase the premium for that insurance.

---

## 5 Default and Termination

### 5.1 Default by Licensee

If the Licensee is in breach of any term or condition of this Deed and fails to rectify such breach within 14 days of written notification from Council (or other period of time as reasonably agreed between the parties having regard to the nature of the breach), then Council may by written notice to the Licensee terminate immediately this Deed and the licence granted under it.

---

## 6 End of Term Obligations

### 6.1 Make Good

- (i) On or before the expiration or termination of this Deed, the Licensee must:
  - (A) promptly remove from the Licensed Area all of the Licensee's property, materials, vehicles, plant and equipment;
  - (B) leave the Licensed Area in good order and condition, and free from all rubbish;and
  - (C) subject to the Works completed in accordance with this Deed, make good anydamage to the Licensed Area caused or contributed to by the Licensee to a standard reasonably required by Council.
- ii) If the Licensee fails to comply with its obligations under clause 6.1(i), Council may give the Licensee written notice setting out the Licensee's outstanding obligations under this clause. If the Licensee fails to comply with the obligations with 14 days of such notice (or other period of time as reasonably agreed between the parties having regard to the nature of the obligation), then Council may comply with the obligations and the cost of such compliance will be recoverable from the Licensee as a debt.

### 6.2 Restoration of Licensed Area

- (i) The Licensee will prepare a condition report documenting the condition of the Licensed Area to which it has access under this Deed as at the Commencement Date. The report will be provided to Council on the day of commencement of Access.
- (ii) Once access to the Licensed Area pursuant to this Deed has ceased, the Licensee must at its expense restore the Licensed Area to which it has had access under this Deed to the state and condition it was in as at the Commencement Date, subject to

fair wear and tear and damage caused by fire, flood, storm, tempest or other risks against which the Licensee would normally insure.

- (iii) Council will conduct a site assessment prior to and at the conclusion of Works.

### 6.3 Rehabilitation Program for the Site

- (i) the Licensee will provide a Bond in favour of Council as security for non- performance by the Licensee of the rehabilitation program for the site of \$6,200
- (ii) On completion of rehabilitation of the site to its condition prior to the access takingplace, the Bond will be returned to the Licensee

---

## 7 Fencing and Alterations

### 7.1 Fencing on site

- (i) The Licensee shall, without cost to the Council and in a proper and workmanlikemanner, either during or prior to the licensees works, relocate and reconstruct orotherwise adjust any existing fencing surrounding the Licensed Area;
- (ii) The Licensee will construct Silt Trap Fencing as a condition of the Works; and
- (iii) The Council required 3 days' notice prior to any fencing work being undertaken;
- (iv) Except as required by the Works, the Licensee must not carry out any works or alterations to or over the Licensed Area without the prior written consent of Council.

---

## 8 Contracting

- (i) The Licensee may subcontract the performance of the Works to a Contractor. Once known, the Licensee will provide Council with the Contractor's contact details and theContractor will provide Council with relevant notifications in relation to the Works.
- (ii) The Licensee must use reasonable endeavours to ensure that the Contractor complieswith the duties and obligations set out in this Deed.
- (iii) Council acknowledges and agrees that the rights granted to the Licensee under this Deed may be exercised on behalf of Licensee by any Contractor carrying out any partor all of the Works



in accordance with this clause.

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## 9 General

### 9.1 Governing Law and Jurisdiction

- (i) This Deed is governed by and is to be construed in accordance with the laws applicable in New South Wales.

- (ii) Each party irrevocably and unconditionally submits to the non-exclusive jurisdiction of the courts exercising jurisdiction in New South Wales and any courts which have jurisdiction to hear appeals from any of those courts and waives any right to object to any proceedings being brought in those courts.

## 9.2 Counterparts

This Deed may consist of a number of counterparts and, if so, the counterparts taken together constitute one document.

## 9.3 Legal Costs

The Licensee must pay Council's reasonable legal costs and expenses of and incidental to negotiating, preparing, executing and finalising this Deed.

## 9.4 Variations and Amendments

This Deed may only be varied or replaced by an agreement executed by the parties.

## 9.5 Further Steps

Each party must promptly do whatever any other party reasonably requires of it to give effect to this Deed and to perform its obligations under it.

## 9.6 Waiver

Any waiver of a breach of this Deed must be in writing signed by the party granting the waiver, and will be effective only to the extent specifically set out in that waiver.

## 9.7 Severability

The parties acknowledge and agree that if all or any part of any provision is judged invalid or unenforceable in all the circumstances, it will be deemed to be deleted and will not affect the validity or enforceability of the remaining provisions.

## 9.8 Notices

- (i) A notice, approval, consent, or other communication in connection with this Deed:

(A) must be in writing;

(B) may be given by a person authorised by the relevant party; and

may be left at the address of the addressee or, except where it is required to be delivered, sent by prepaid ordinary post (airmail if posted to or from a place outside Australia) to the address of the addressee or sent by facsimile or email to the facsimile number or email address of the addressee which is specified in this Deed or if the addressee notifies another address, facsimile number or email address then to that address, facsimile number or email address.

- (ii) A notice, approval, consent or other communication takes effect from the time it is received unless a later time is specified in it. If a notice is received later than 5.00pm on a business day, it is taken to have been served at 9.00am on the next business day.
- (iii) A letter, facsimile or email is taken to be received:
  - (A) in the case of a posted letter, on the third (seventh, if posted to or from a place outside Australia) day after posting;
  - (B) in the case of facsimile, on production of a transmission report by the machine from which the facsimile was sent in its entirety to the facsimile number of the recipient; and
  - (C) in the case of an email, immediately once sent, unless a notification of delivery failure is received within 120 minutes of the email being sent.

## Schedule

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Item	Matter	Details
1	Property	The property situated at Cnr Denmark Rd/Gig Way, Lot 47/48 within Council's property, being Lot 16, Sec 13, DP 1485 Denmark Street, Riverstone.
2	Licensed Area	As per the swale design drawing.
3	Commencement Date	The date of this Deed.
4	Termination Date	2 weeks from the date of this Deed.
5	Time of Access	Monday – Friday 7am – 6pm Saturday – 8am - 1pm
6	Purpose	Construction of Swale Drain.

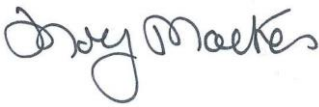
Execution

EXECUTED AS A DEED

Executed for and on behalf of **Blacktown City Council** ABN 18 153 831 768 by its attorney who states that he/she has no notice of the revocation of Power of AttorneyBook 4758 Number 886 pursuant to principal instrument dated 29.08.2013 being Registered Book 4654 No. 514.

In the presence of:

  
\_\_\_\_\_  
Witness (Signature)

  
\_\_\_\_\_  
Attorney (Signature)

Nishtha Tandon  
\_\_\_\_\_  
Name of Witness (Print Name)


Mary Macken  
\_\_\_\_\_  
Name of Attorney (Print Name)

26/10/2023  
\_\_\_\_\_  
Date

Executed by **Transport for NSW (TfNSW) ABN 18 804 239 602** pursuant to the provisions in s.127 Corporations Act 2001

  
\_\_\_\_\_  
Signature of Director/Secretary  
Authorised Delegate

Bhav Chawla  
\_\_\_\_\_  
Name

  
\_\_\_\_\_  
~~Signature of Director~~  
Authorised Delegate

Thev Theivendran  
\_\_\_\_\_  
Name

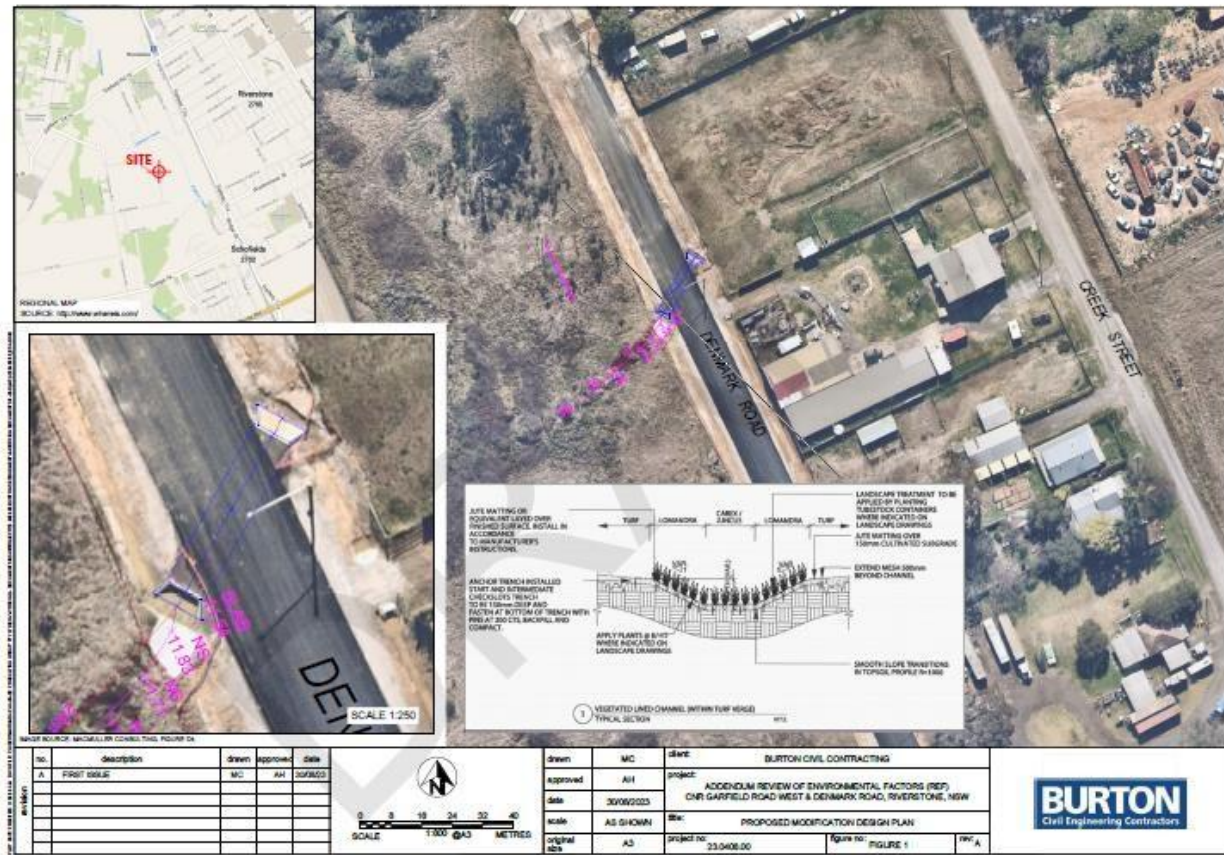
26/10/2023  
\_\_\_\_\_

26/10/2023  
\_\_\_\_\_

Addendum review of environmental factors

Date

Date





Annexure B – Aerial



