Planning Approval Consistency Assessment Form

SM-17-00000111

Metro Body of Knowledge (MBoK)

Assessment name:	Sydney International Speedway – Construction footprint for drainage design
Prepared by:	Sydney Metro
Prepared for:	Sydney Metro
Assessment number:	SIS02
Status:	Final
Version:	1.0
Planning approval:	SSI 10048
Date required:	01/03/2021
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Form information – do not alter:

Applicable to:	Sydney Metro
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System Owner:	Deputy Chief Executive, Operations, Customer & Place-making
Status:	Final
Version:	3.0
Date of issue:	27 November 2020

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The Planning Approval Consistency Assessment Form should be completed in accordance with SM-17-00000103 Planning Approval Consistency Assessment Procedure.

1. Existing Approved Project

Planning approval reference details (Application/Document No. (including modifications)):

- SSI 10048 Sydney International Speedway

Date of determination:

- SSI 10048: 23 December 2020

Type of planning approval: SSI (Division 5.2)

Description of existing approved project you are assessing for consistency:

- Construction and operation of the Sydney International Speedway including:
  - A new world-class clay-based racetrack for both speedway cars and motorcycles including sprint, wingless sprint, street stockers, V8 dirt modified and Formula 500 cars
  - A new grandstand and terraced seating to accommodate up to 7000 spectators
  - Public amenities, corporate boxes, food, beverage and merchandise outlets
  - Dedicated parking for speedway competitors and spectators
  - Additional overflow parking with flexibility to be used for dragway events
  - Dual access to the precinct by creating new vehicle access to the speedway pit area via a new intersection built off Ferrers Road
  - A dedicated competitor pit area to service the speedway
  - Workshops, garages and trackside support services.

The approved project includes a pit and pipe drainage system to direct runoff through a series of drains and to a number of batter chutes along the boundaries of the project site.

Relevant background information (including EA, REF, Submissions Report, Director General's Report, MCoA):

- Sydney International Speedway Environmental Impact Statement including accompanying technical papers (August 2020)
- Sydney International Speedway Submissions Report (November 2020)
- Sydney International Speedway Amendment Report (November 2020)
- Instrument of Approval (dated 23 December 2020).

The above documents are available on the NSW planning portal here: https://www.planningportal.nsw.gov.au/major-projects/project/30111

All proposed works identified in this assessment would be undertaken in accordance with the mitigation measures identified in the EIS, Submissions Report and Amendment Report and the conditions of approval.

2. Description of proposed development/activity/works

The proposed development includes the extension of the construction footprint to support the safe construction of the approved batter chutes. The two batter chutes subject of this Consistency Assessment are located along the western boundary of the main operational site in proximity to reinforced soil wall (RSW), which would discharge into the existing culverts underneath Ferrers Road.

Further consideration of the construction methodology for the batter chutes has been undertaken to ensure that the deep excavation for the batter chutes could be constructed safely, to minimise safety risks associated with excavation in proximity to tree root zones, and so that the construction of the batter chutes would meet the requirements of the current construction program.

Construction of the batter chutes for the approved project requires excavation approximately 3 metres deep, and additional room is required to bench excavations on either side of the batter chute. Further, the adjacent trees next to a deep excavation create a safety hazard as the roots could become undermined and the trees could have the potential to fall into the excavation. As a result, a 5 to 10 metre clearance zone is required to be implemented, to minimise safety risks associated with the construction. This would create a cleared strip, approximately 5 to 10 metres wide, for each of the batter chutes, between Ferrers Road and the RSW. This requires the additional clearing of around 318m^2 of vegetation in total.

The construction footprint and additional vegetation clearance required to construct these two batter chutes were not considered in the approved project, and therefore form the basis of this Consistency Assessment. The proposed construction footprint is shown in Appendix A.

Clearance of the vegetation for the proposed construction footprint would be undertaken using the following:

- 15t excavator with grabs
- Chainsaws
- Mulcher / chipper.

The methodology for the construction of the batter chutes for the approved project includes:

- Locations of headwalls to be set out using survey
- Approved vegetation clearance area to be established using survey and marking trees approved for removal
- Commence vegetation clearing
- Trenching and pipe installation (up to the headwall) from the top of the embankment mainly using a 30t excavator
- Installation of corrugated steel batter chutes using a 5t excavator to minimize tracking footprint.

The staffing levels and waste generated are expected to be the same as for the approved project. All removed vegetation will be mulched and used onsite, however all weeds listed as Priority under the *Biosecurity Act 2015* would be appropriately managed in accordance with the Construction Environment Management Plan (CEMP) and the requirements of the *Biosecurity Act 2015*.

A site plan showing the location and extent of the works is provided as Appendix A and a biodiversity pre-clearing survey report prepared by Narla Environmental, on behalf of Abergeldie (SIS contractor) is provided as Appendix B. This pre-clearing survey report covers the clearing as part of the proposed construction footprint for the batter chutes, and the sub-soil drainage outlets subject to assessment in Consistency Assessment number SIS01.

3. Timeframe

When will the proposed change take place? For how long?

Vegetation clearance within the proposed construction footprint is expected to take 2 days. Construction for the batter chutes which are assessed in the approved project are expected to take 7 days (3.5 days each batter chute).

4. Site description

Provide a description of the site on which the proposed works are to be carried out, including, Lot and Deposited Plan details, where available. Map to be included here or as an appendix. Detail of land owner.

The Sydney International Speedway is being developed on land owned by the NSW Government, managed by the Western Sydney Parklands Trust (WSPT). The SIS is located on the following lots:

- Lot 1, deposited plan (DP) 1077822
- Lots A, B & C DP 408966
- Lot 2 DP 1062965.

The proposed construction footprint would be located on Lot 1, deposited plan (DP) 1077822. The proposed construction footprint for the approved batter chutes would extend beyond the approved site boundary on land that is also owned by the NSW Government and managed by WSPT. Refer to Appendix A for a site plan.

5. Site Environmental Characteristics

Describe the environment (i.e., vegetation, nearby waterways, land use, surrounding land use), identify likely presence of protected flora/fauna and sensitive area.

The proposed construction footprint would be located on an existing batter between the boundary of the site and Ferrers Road. This area includes vegetation corresponding to the plant community type (PCT) Grey Box - Forest Red Gum grassy woodland on shale of the southern Cumberland Plain, Sydney Basin Bioregion (PCT 850) This PCT forms part of the Cumberland Plain Woodland in the Sydney Basin Bioregion which is listed as a threatened ecological community (TEC) under the BC Act (listed as Critically Endangered). The condition of the vegetation in the area of the proposed works is classified as revegetation.

The approved project considered the removal of some vegetation within this area for the design of the batter chutes. However, as previously discussed, a wider construction footprint would be required to undertake the works. This has resulted in the requirement to clear an additional 318m^2 (approx.) of the TEC. Potential impacts on flora and fauna are further discussed in section 10. Refer to Appendix A for the PCTs impacted by the approved project.

6. Justification for the proposed works

Address the need for the proposed works, whether there are alternatives to the proposed works (and why these are not appropriate), and the consequences with not proceeding with the proposed work.

The approved project included the implementation of batter chutes that take advantage of existing terrain and minimise excavation requirements during construction. Batter chutes have been implemented as they have the least environmental impact compared to a typical drop pit which would require the removal of a significantly larger area.

The two batter chutes subject of this Consistency Assessment are located along the western boundary of the main operational site, which would discharge into the existing culverts underneath Ferrers Road.

Further design development has indicated that given the deep excavation required (up to approximately 3 metres), excavation would consist of a bench excavation which requires additional space on either side to minimise safety risks associated with the potential collapse of the excavated walls. The adjacent trees next to the deep excavation create a safety hazard as the roots could become undermined and the trees have the potential to fall into the excavation.

An alternate method of constructing the batter chutes consisted of locating the excavator as close as possible to the toe of the wall, and using the extended excavator arm to access the site area, minimising the need for intrusion by the excavator into the vegetated areas. However, this would not account for the additional excavation and clearance area required for the bench excavation, or to minimise the safety risks of compromised tree root zones. This method would therefore posed additional safety and constructability risks, and a preferred construction methodology (subject of this Consistency Assessment) was identified.

The preferred construction methodology includes a 5 to 10 metre clearance zone (proposed construction footprint) to be implemented, to minimise safety risks associated with the construction. This way, the construction workers, plant and equipment required can safely construct the batter chutes without the safety and constructability risks associated with alternate methods.

Condition of approval – E12 Biodiversity:

Condition E12 of the approved project states the *clearing of native vegetation must be minimised with the objective of reducing impacts to threatened ecological communities and threatened species habitat.*

The clearance zone has been designed to minimise the additional tree removal required, and aimed to reduce impacts to threatened ecological communities and threatened species habitat. Closest to Ferrers Road, due to the shallow excavation required in this area, only 5 metre cleared width in total, is required for construction. The proposed construction footprint is therefore reduced in this area to the minimal width required to construct the batter chutes. Closest to the RSW where the excavation reaches depths of approximately 3 metres, a 10

metre cleared width is required. This area is the minimum width required to safely bench the excavation and for plant / machinery access in this area.

Condition of approval – E13 Biodiversity Credits

Conditional E13 of the approved project states: Before any vegetation clearing or tree removal that must be offset, the Proponent must purchase and retire Biodiversity credits specified in Table 7 of the approval. The retirement of credits must be carried out in accordance with the offset rules of the *Biodiversity Conservation Act 2016* (BC Act). Sydney Metro have retired the required biodiversity offsets for the approved project.

A review of the proposed construction footprint was undertaken to determine whether the credit obligation for the approved project (as calculated by the Biodiversity Assessment Method calculator (BAM-C)) would change given the minor increase of vegetation removal to reflect the addition of the proposed construction footprint for the two batter chutes.

The result of the BAM-C impact and credit revision demonstrates that the increase in clearing required for the batter chutes would not have increased the project's offset credit obligation if it had been included in the original impact assessment for the approved project. It can be concluded therefore that the proposed construction footprint has consistent credit obligations with the approved project. This BAM-C review is provided as Appendix C.

7. Environmental benefit

Identify whether there are environmental benefits associated with the proposed works. If so, provide details:

The batter chutes will play an important role in the stormwater management system for the project site. The batter chutes were considered the preferred option to direct stormwater to existing waterways and drainage infrastructure using the existing natural topography of surrounding land. Batter chutes have been included as part of the site stormwater and drainage design in this area of the project site to discharge runoff if the on site detention tanks reach capacity.

The environmental benefits of the batter chutes as opposed to additional on-site storage is discussed in the Amendment Report for the approved project.

As previously discussed, the proposed construction footprint is necessary to minimise the safety and environmental risks associated with the construction of the batter chutes.

8. Control Measures

Will a project and site specific EMP be prepared? Are appropriate control measures already identified in an existing EMP?

The works would be undertaken within the existing CEMP which identifies appropriate controls for the works. A biodiversity pre-clearing survey report prepared by Narla Environmental, on behalf of Abergeldie (SIS contractor) is provided as Appendix B. This pre-clearing survey report covers the clearing as part of the proposed construction footprint for the batter chutes. All soil and erosion controls would be implemented as per the existing CEMP.

9. Climate Change Impacts

Is the site likely to be adversely affected by the impacts of climate change? If yes, what adaptation/mitigation measures will be incorporated into the design?

Given the minor nature and scope of the works, the proposed works would not give rise to any impacts that would contribute to climate change. The construction of the batter chutes is critical to manage increased rainfall amounts and intensity that may occur under future climate scenarios.

10. Impact Assessment – Construction

<table>
<tr><th rowspan="2">Aspect</th><th rowspan="2">Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project</th><th rowspan="2">Proposed Control Measures in addition to project COA and REMMs</th><th rowspan="2">Minimal Impact Y/N</th><th colspan="2">Endorsed</th></tr>
<tr><th>Y/N</th><th>Comments</th></tr>
<tr><td>Flora and fauna</td><td>
The proposed construction footprint would require the additional clearing of:

318.2m^2 of Plant Community Type (PCT) 850: Grey Box - Forest Red Gum grassy woodland on shale of the southern Cumberland Plain, Sydney Basin Bioregion – Revegetation (Vegetation zone 4) – (critically endangered under the BC Act)
214.4m^2 of potential Southern Myotis (Myotis macropus) habitat (vulnerable under the BC Act).

A review of the proposed construction footprint was undertaken to determine whether the credit obligation for the approved project (as calculated by the Biodiversity Assessment Method calculator (BAM-C)) would change given the minor increase of vegetation removal to reflect the addition of the proposed construction footprint for the two batter chutes. This is included as Appendix C.
The result of the BAM-C impact and credit revision demonstrates that the increase in clearing required for the batter chutes would not have increased the project's offset credit obligation if it had been included in the original impact assessment for the approved project. It can be concluded therefore that the proposed construction footprint has consistent credit obligations with the approved project.
A table of the credit obligation for the approved project and the additional batter chute clearing is included below:
<table>
<tr><th rowspan="2">Biodiversity value</th><th rowspan="2">Credit type</th><th colspan="2">Approved project</th><th colspan="2">Revision for batter chute clearing</th><th></th></tr>
<tr><th>Impact</th><th>Credits</th><th>Change</th><th>Impact</th><th>Credits</th></tr>
<tr><td>PCT 850 - Revegetation (Vegetation zone 4)</td><td>Ecosystem</td><td>0.059 ha (586 m2)</td><td>1</td><td>+ 318.2 m^2</td><td>0.09 ha (904.2 m^2)</td><td>1</td></tr>
<tr><td>Southern Myotis (Myotis macropus)</td><td>Species</td><td>0.005 ha (51 m2)</td><td>1</td><td>+ 163.4 m^2</td><td>0.021 ha (214.4 m^2)</td><td>1</td></tr>
</table>
</td><td>

The two microhabitats identified in the Pre-Clearing Survey (Narla Environmental, 2020) for the proposed construction footprint would be demarcated prior to construction, and retained.
Existing trees to be retained would be protected outside the proposed construction footprint prior to the commencement of construction in accordance with Australian Standard AS4970 the Australian Standard for Protection of trees on Development Sites and Adjoining Properties
A post clearance report, including any relevant Geographical Information System files, will be produced that validates the type and area of vegetation cleared.

</td><td>Y</td><td>Y</td><td></td></tr>
</table>

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
	Pre-clearing survey The pre-clearing survey for the proposed construction footprint was undertaken by Narla Environmental Pty Ltd (December 2020). The pre-clearing survey was to identify and demarcate all fauna habitat within the Survey Area in accordance with Biodiversity Guidelines (RTA 2011) developed by Transport for NSW (formerly Roads and Maritime Services), which is considered the industry standard. As part of the assessment, the construction footprint for the two batter chutes were surveyed for significant biodiversity features including: • Habitat of fauna (including threatened fauna) such as habitat trees • Locations of nearby habitat • Locations of threatened flora species • Location of all priority weeds under the Biosecurity Act 2015 • Opportunistic sightings of fauna. No habitat trees were recorded in the survey area. The report advised that all native vegetation within the proposed construction footprint can be cleared in a single-stage process, which includes the under-scrubbing of non-habitat trees, shrubs and other vegetation. This would be undertaken in accordance with the Construction Fauna and Fauna Management Sub-plan (Abergeldie 2020). One soak and one culvert were identified in the survey area for the northern batter chute. These two microhabitats would be demarcated and retained. The following 3 Priority weed species listed under the *Biosecurity Act 2015* were found within the survey area: • *Lycium ferocissium* • *Senecio madagascariensis*				

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
	• *Lantana camara.* All weeds listed as Priority would be appropriately managed in accordance with the Construction Environment Management Plan (CEMP) and the requirements of the *Biosecurity Act 2015*.				
Water	Potential for minor and localised soil erosion and sedimentation as a result of additional ground disturbance and tree removal will be managed through erosion and sedimentation controls already established in the CEMP.	No additional measures required.	Y	Y	
Air quality	No change from the approved project.	No additional measures required.	Y	Y	
Noise vibration	The construction noise impacts from the approved project are generally low, due to the large separation distance between the project site and nearest receivers. 'Site Clearance' was considered in the construction scenario description for Area 6 (in the approved project), which is adjacent to the batter chutes and the proposed construction footprint. This included general land clearing, tree and stump removal, and topsoil stripping. Noise levels during 'Site Clearance' are generally controlled by the use of a wood chipper. The wood chipper would be contained within the approved project boundary. As no night time works would be required for the clearing of the vegetation for the proposed construction footprint, it can be assumed that there would be no further noise impacts for nearby receivers.	• The use of the chipper / mulcher for the proposed construction footprint would be restricted to the daytime hours to minimise exceedance of the NMLs for the nearest receivers. The chipper / mulcher would be contained within the approved project footprint to minimise the potential noise impacts associated with vegetation clearance for the proposed construction footprint.	Y	Y	
Aboriginal heritage	The archaeological survey area subject of the approved project included the location of the two batter chutes and an adequate buffer on each side, consistent with the proposed construction footprint subject of this Consistency Assessment. The Aboriginal cultural heritage assessment concluded that the proposed construction footprint area consists of heavily modified	No additional measures required.	Y	Y	

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
	and artificial landforms and no new Aboriginal sites were identified within these areas, as part of the archaeological field survey. Previously registered AHIMS sites, and areas of potential Aboriginal archaeological heritage significance identified as part of the exhibited Environmental Impact Statement are located outside of the additional areas surveyed, and ground disturbance attributed to the proposed amendments and would not be impacted by construction or operation of the amended project. Therefore, the proposed construction footprint (consistent with the Aboriginal heritage survey area) would not increase the impacts associated with Aboriginal heritage.				
Non-Aboriginal heritage	There are no items of non-Aboriginal heritage significance, or significant non-Aboriginal archaeological remains identified within the project site for the approved project. As such, there would be no direct impacts to non-Aboriginal heritage as a result of the construction and/ or operation of the project. There is one State heritage listed heritage item located approximately 900 metres east of the proposed construction footprint. There would be no increase in impacts to non-Aboriginal heritage and therefore would be no change from the approved project.	No additional measures required.	Y	Y	
Community and stakeholder	No change from the approved project.	No additional measures required.	Y	Y	
Traffic	No change from the approved project. No changes in construction traffic are proposed for the vegetation clearing for the proposed construction footprint.	No additional measures required.	Y	Y	
Waste	No change from the approved project. All removed vegetation will be mulched and used onsite, however all weeds listed as Priority under the *Biosecurity Act 2015* would be appropriately managed in accordance with the CEMP and the requirements of the *Biosecurity Act 2015.*	No additional measures required.	Y	Y	

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Social	No change from the approved project.	No additional measures required.	Y	Y	
Economic	No change from the approved project.	No additional measures required.	Y	Y	
Visual	The proposed construction footprint would be consistent with Viewpoint 4 within the *Technical Paper 7 - Landscape and Visual Amenity* of the approved project. Given the small extent of the proposed vegetation removal (limited to two zones approximately 5 to 10 metres wide each), this would have no change to the visual impacts for the approved project. Also, given the construction works along the vegetated mound for the construction of the batter chutes would be undertaken for approximately 7 days in total, any change in visual impact in regard to construction plant and material being visible along Ferrers Road would be temporary and negligible.	No additional measures required.	Y	Y	
Urban design	No change from the approved project.	No additional measures required.	Y	Y	
Geotechnical	No change from the approved project.	No additional measures required.	Y	Y	
Land use	No change from the approved project.	No additional measures required.	Y	Y	
Climate change adaptation	Climate change adaptation impacts from this proposed amendment would be consistent with those assessed for the approved project.	No additional measures required.	Y	Y	
Risk	All utilities and services potentially affected by the proposed construction footprint would be identified, to determine requirements for adjustment, relocation, diversion, protection and/or support.	No additional measures required.	Y	Y	
Other	No change from the approved project.	No additional measures required.	Y	Y	

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Management and mitigation measures	No change from the approved project.	No additional measures required.	Y	Y	

11. Impact Assessment – Operation

Aspect	Nature and extent of impacts (negative and positive) during operation (if control measures implemented) of the proposed activity/works, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Flora and fauna	Refer to Table 10 above for impacts on Flora and Fauna as a result of additional vegetation removal for the proposed construction footprint.	No additional measures required.	Y	Y	
Water	No change from the approved project.	No additional measures required.	Y	Y	
Air quality	No change from the approved project.	No additional measures required.	Y	Y	
Noise vibration	No change from the approved project.	No additional measures required.	Y	Y	
Aboriginal heritage	No change from the approved project.	No additional measures required.	Y	Y	
Non-Aboriginal heritage	No change from the approved project.	No additional measures required.	Y	Y	
Community and stakeholder	No change from the approved project.	No additional measures required.	Y	Y	
Traffic	No change from the approved project.	No additional measures required.	Y	Y	
Waste	No change from the approved project.	No additional measures required.	Y	Y	
Social	No change from the approved project.	No additional measures required.	Y	Y	
Economic	No change from the approved project.	No additional measures required.	Y	Y	

Aspect	Nature and extent of impacts (negative and positive) during operation (if control measures implemented) of the proposed activity/works, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Visual	The proposed construction footprint would be consistent with Viewpoint 4 within the Technical Paper 7 - Landscape and Visual Amenity of the approved project. Given the small extent of the proposed vegetation removal (limited to two zones approximately 5 to 10 metres wide each), the vegetation clearance for the proposed construction footprint would have no change to the visual impacts for the approved project.	No additional measures required.	Y	Y	
Urban design	No change from the approved project.	No additional measures required.	Y	Y	
Geotechnical	No change from the approved project.	No additional measures required.	Y	Y	
Land use	No change from the approved project.	No additional measures required.	Y	Y	
Climate change adaptation	No change from the approved project.	No additional measures required.	Y	Y	
Risk	No change from the approved project.	No additional measures required.	Y	Y	
Other	No change from the approved project.	No additional measures required.	Y	Y	
Management and mitigation measures	No change from the approved project.	No additional measures required.	Y	Y	

12. Consistency with the Approved Project

Based on a review and understanding of the existing Approved Project and the proposed modifications, is there is a transformation of the Project?	No. The proposed works would not transform the project. The proposed construction footprint is required for the construction of the approved project.
Is the project as modified consistent with the objectives and functions of the Approved Project as a whole?	Yes. The proposed works would be consistent with the objectives and functions of the approved project.
Is the project as modified consistent with the objectives and functions of elements of the Approved Project?	Yes. The changes identified in this assessment are consistent with the objectives and functions of the elements of the approved project
Are there any new environmental impacts as a result of the proposed works/modifications?	All risks would be adequately addressed through the application of the mitigation measures in the above tables. There would be no new environmental risks as a result of the proposed works.
Is the project as modified consistent with the conditions of approval?	Yes. The proposed works would be consistent with the conditions of approval.
Are the impacts of the proposed activity/works known and understood?	Yes. The impacts of the proposed works are understood and will be accounted for by implementing the control measures within this document, the CEMP, CEMP sub-plans and any other measures as directed by the qualified ecologist as part of the pre-clearing survey (Appendix B).
Are the impacts of the proposed activity/works able to be managed so as not to have an adverse impact?	Yes. The impacts of the proposed works can be managed so as to avoid an adverse impact.

13. Other Environmental Approvals

Identify all other approvals required for the project:	N/A

Author certification

To be completed by person preparing checklist.

I certify that to the best of my knowledge this Consistency Checklist: • Examines and takes into account the fullest extent possible all matters affecting or likely to affect the environment as a result of activities associated with the Proposed Revision; and • Examines the consistency of the Proposed Revision with the Approved Project; is accurate in all material respects and does not omit any material information.			
Name:	Jessie Strange	Signature:	
Title:	Planning Approvals Officer		
Company:	Sydney Metro	Date:	25/02/2021

This section is for Sydney Metro only.

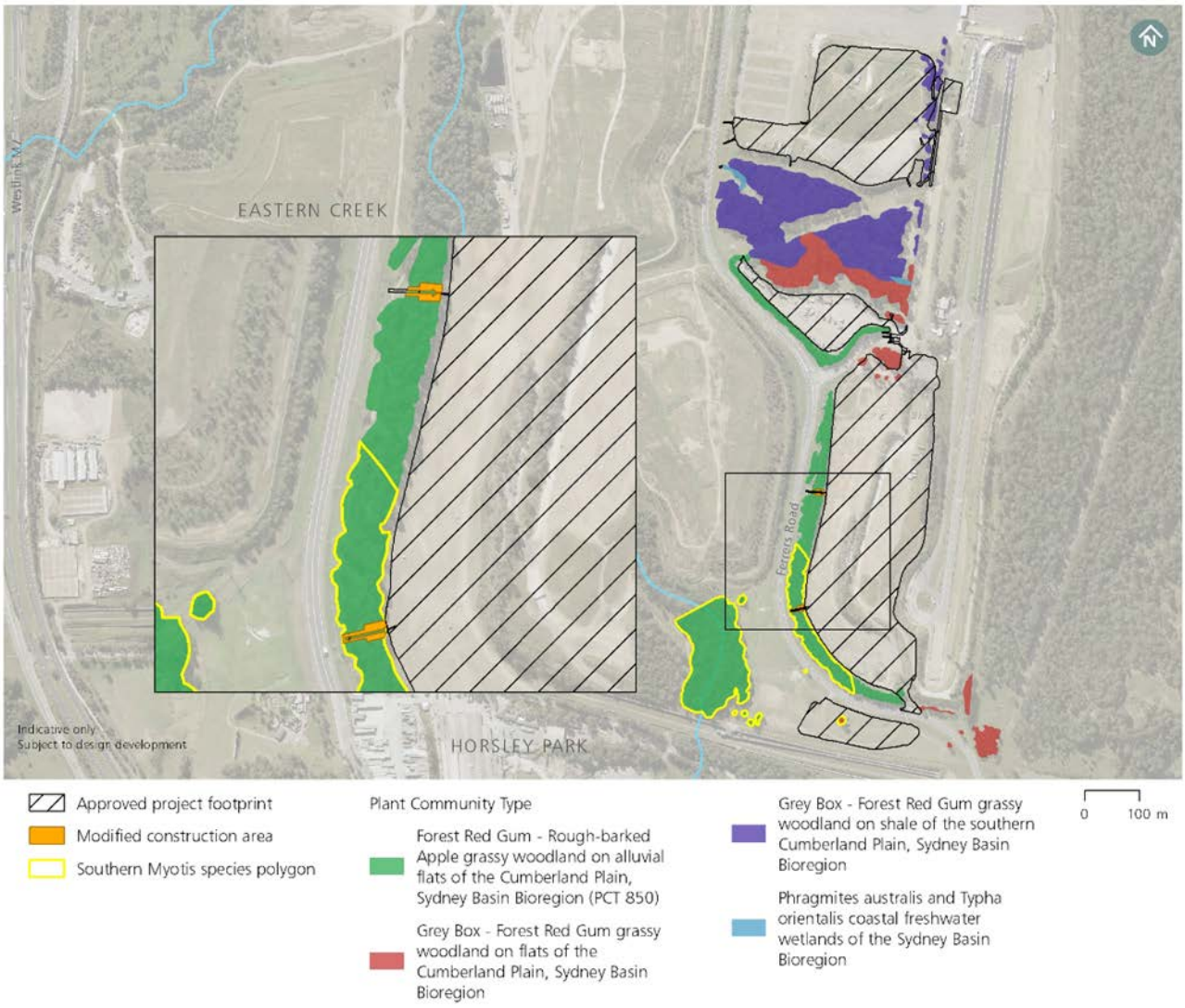
Application supported and submitted by			
Name:	Yvette Buchli	Date:	25/02/2021
Title:	Associate Director, Planning Approvals	Comments:	
Signature:			

Based on the above assessment, are the impacts and scope of the proposed activity/modification consistent with the existing Approved Project?

Yes	☒	The proposed activity/works are consistent and no further assessment is required.
No	☐	The proposed works/activity is not consistent with the Approved Project. A modification or a new activity approval/ consent is required. Advise Project Manager of appropriate alternative planning approvals pathway to be undertaken.

Endorsed by			
Name:	Todd Brookes	Date:	25/02/2021
Title:	Director, Environment Sustainability and Planning Metro West	Comments:	
Signature:			

Appendix A: Proposed construction footprint



Appendix B – Pre-clearing Report

Pre-clearing Survey Report

Sydney International Speedway (Sub-soil Drainage Outlets)

Report prepared by Narla Environmental for Abergeldie

December 2020

NARLA
environmental

Report:	Pre-clearing Survey Report – Sydney International Speedway (Sub-soil Drainage Outlets)
Prepared for:	Abergeldie
Prepared by:	Narla Environmental Pty Ltd
Project no:	Aber6
Date:	December 2020
Version:	Final v1.0

Narla Environmental Pty Ltd
www.narla.com.au

Report Certification

Works for this report were undertaken by:

Staff Name	Position
Chris Moore *BBioCon*	Narla Environmental Project Manager/Ecologist
Sjaak Verstappen *BSc*	Narla Environmental Ecologist

Document Control

Revision	Document Name	Issue Date	Internal Document Review
Draft v1.0	Pre-clearing Survey Report – Sydney International Speedway (Sub-soil Drainage Outlets)	22/12/2020	Chris Moore
Final v1.0	Pre-clearing Survey Report – Sydney International Speedway (Sub-soil Drainage Outlets)	22/12/2020	Chris Moore

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1. Introduction

1.1 Project Background

Narla Environmental Pty Ltd (Narla) were engaged by Abergeldie Complex Infrastructure ('the proponent') to conduct a pre-clearing survey for areas to be impacted by the construction of sub-soil drainage outlets and batter chute works for the Sydney International Speedway, hereafter referred to as the 'Survey Area' (**Figure 1**). The Survey Areas were based on consultation with the proponent on the day of the site assessment.

1.2 Desktop Study

A literature review of local information relevant to the Survey Area was conducted. Online databases (DPIE 2020) were utilised to obtain threatened species and biodiversity data recorded from, or modelled within, the Survey Area and surrounds to an area of approximately 10km².

1.3 Scope of Assessment

The objective of this pre-clearing survey was to identify and demarcate all fauna habitat within the Survey Area in accordance with *Biodiversity Guidelines* (RTA 2011) developed by Transport for NSW (formerly Roads and Maritime Services), which is considered the industry standard. This includes:

- Identify the presence or evidence of threatened flora and fauna species;
- Demarcate, photograph, and map all habitat features within the Survey Area;
- Identify suitable areas for fauna to be relocated to in the event of fauna capture during clearing;
- Identify any preferential microhabitat (large course woody debris and bush rock) to be relocated outside the Survey Area and potential relocation sites; and
- Demarcate and map the occurrence and extent of weeds listed as *Priority* within the Blacktown Local Government Area under the Biosecurity Act 2015 within the Survey Area.

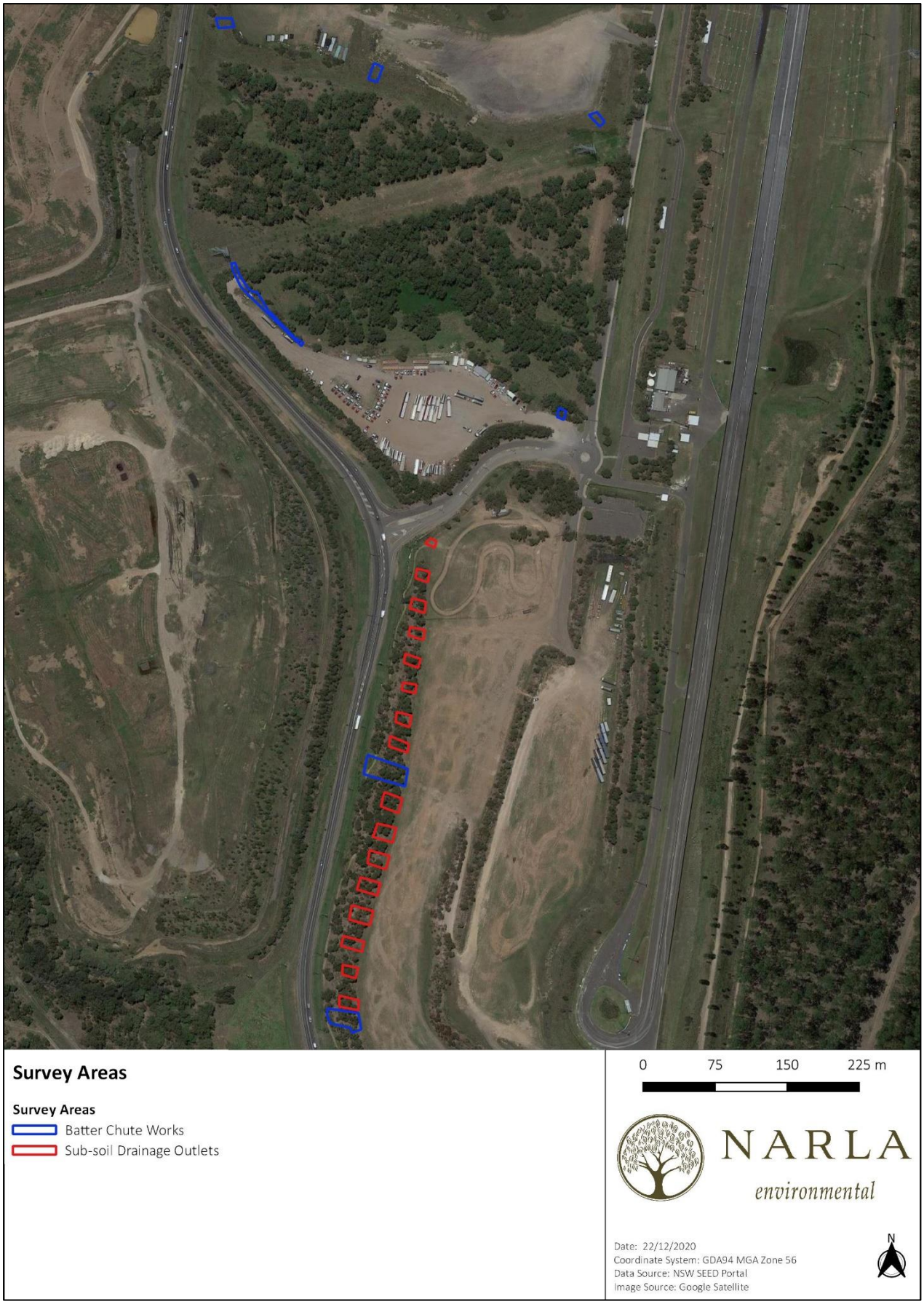


Figure 1 Map of Survey Areas inspected for the proposed drainage works.

2. Methodology

2.1 Site Assessment

The pre-clearing survey was conducted by experienced Narla Ecologist, Sjaak Verstappen, on Monday the 21st of December 2020.

During the assessment the Narla Ecologist surveyed all areas as requested by Abergeldie for significant biodiversity features including but not limited to:

- Habitat of all fauna (particularly threatened fauna) including:
    - Habitat trees including hollow-bearing trees, decorticating bark, and bird nests (that could provide habitat for birds, frogs, reptiles, small mammals and microbats);
    - Trees and shrubs supporting nest structures (habitat for birds and arboreal mammals);
    - Soaks and moist areas (habitat for frogs);
    - Locations of any suitable threatened fauna habitat; and
    - Any other habitat features that may support fauna species.
- Locations of nearby habitat (outside the Survey Area) suitable for the release of fauna that may be encountered during clearing;
- Locations of any threatened flora species;
- Locations of all weeds listed as Priority under the Biosecurity Act 2015; and
- Opportunistic sightings of fauna (including vertebrate pest species) utilising habitat within the Project Area.

2.2 Habitat Demarcation and Photographs

A habitat tree is defined as any tree which may feasibly conceal protected fauna.

During the pre-clearing survey, the Ecologist demarcated each habitat tree using the following method:

- Wrapping white-and-red flagging tape around each tree trunk;
- Recording the location of each tree with a handheld GPS (Garmin 64s); and
- Writing a tree identification number on a tag attached to each tree, to be referenced in the pre-clearing survey report and post-clearing report.

Each tree was photographed twice from a distance to enable view of the whole tree, and up close to enable view of the tree identification number

2.3 Priority Weeds

The location of all Priority weeds was recorded with a handheld GPS (Garmin 64s) and are presented within this Pre-clearing Report.

All Priority woody weeds identified by the Ecologists were flagged with bright pink flagging tape.

These weeds must not be chipped/mulched with native vegetation or mixed with mulch mixes that are intended for use in onsite landscaping works.

All Priority weeds must be removed from site and disposed of at a licenced waste disposal facility in accordance with the approved Construction Environmental Management Plan.

2.4 Weather Conditions

Weather conditions recorded at the nearest weather station (Horsley Park, NSW) prior to and during the site assessment are provided in **Table 1** (BOM 2020).

Table 1. Weather conditions recorded at Horsley Park (station 067119) preceding and during the site assessment (site assessment date in bold)

Date	Day	Minimum Temp. (°C)	Maximum Temp. (°C)	Rainfall (mm)
14/11/2020	Monday	16.4	25.1	1.8
15/11/2020	Tuesday	18.2	25.4	5.4
16/11/2020	Wednesday	20.0	30.1	5.4
17/11/2020	Thursday	20.0	33.1	4.4
18/12/2020	Friday	20.4	32.3	14.8
19/12/2020	Saturday	17.3	19.6	1.2
20/12/2020	Sunday	16.7	24.1	1.8
21/12/2020	**Monday**	**16.8**	**23.9**	**0.2**

3. Results

3.1 Habitat Trees

No habitat trees were recorded within the Survey Area.

3.2 Other microhabitat Features

The following additional microhabitat features were recorded within the Survey Area (**Table 2**):

- One (1) soak that may provide habitat for frogs;
- Two (2) rocky outcrops that may provide habitat for reptiles; and
- One (1) culvert that may provide habitat for reptiles, amphibians and microchiropteran bats.

Comprehensive mapping of all microhabitat features recorded within the Survey Area are presented in **Appendix A**.

Table 2 Other habitat features within the Survey Area

Habitat Feature	Latitude	Longitude
Culvert	-33.818911	150.867598
Rocky Outcrop	-33.819093	150.867794
Rocky Outcrop	-33.81739	150.868094
Soak	-33.818894	150.867568

3.3 Priority Weeds

The following woody Priority weeds were demarcated within the Project Area:

- Lantana camara (Lantana);
- *Lycium ferocissimum* (African Boxhorn);
- *Olea europaea* subsp. *cuspidata* (African Olive); and
- Senecio madagascariensis (Fireweed)

Comprehensive mapping of the locations of all Priority Weeds found within the Project Area can be seen in **Appendix B.**

4. Recommendations

4.1 Vegetation Clearing

As no habitat trees were identified within the Survey Area, all native vegetation can be cleared in a single-stage process in accordance with the Construction Fauna and Fauna Management Sub-plan (Abergeldie 2020).

Clearing can be undertaken in a single-stage process, which includes the under-scrubbing of non-habitat trees, shrubs and other vegetation.

4.2 Microhabitat

All microhabitat should be retained where possible. If microhabitat is required to be removed by the proposed works it should be done under the supervision of a qualified ecologist who can safely relocate any fauna that might be displaced. All microhabitat should be salvaged and relocated elsewhere within the project area where possible, in an area proposed to be retained.

4.3 Priority Weeds

Priority Weeds are to be managed in accordance with the Construction Flora and Fauna Management Sub-plan (Abergeldie 2020). Clearing crews must read this report to get an understanding of the Priority weeds identified within the Survey Area and their precise locations.

Any use of herbicides will be strictly in accordance with the Pesticides Act 1999, product label, and the Project Safety Management Plan. Where approved herbicides are required to be used to control weed species near water, i.e. creeks, drainage depressions and stormwater drains, extra care is to be taken to limit overspray. All herbicides will only be used during suitable weather conditions.

Herbicides are not to be used without the prior approval of the Environment Sustainability and Approvals Manager or delegate. If a non-glyphosate herbicide is to be used, approval from the Safety Manager and the Environmental and Sustainability Manager is required; this 'hold point' is clearly stated in the Weed Management Procedure.

If native tree mulch is to be repurposed and spread around the site, significant weeds and their seeds must be cleared separately before or during clearing to avoid contamination of wood mulch and to prevent the spread of significant weeds.

Best practise weed removal methodology for species identified within the Survey area is outlined in **Table 3.**

Table 3. Weed removal methodology as recommended by DPI (NSW WeedWise)

Species	Weed removal method
Lantana camara	Hand pulling can work on small infestations, isolated plants and in steep areas that machinery cannot access. The best time is after rain when soil is moist. Wear gloves when hand pulling. Grub out roots with a mattock or hoe, then roll and haul the stems and roots away. Remove the roots and stems or the lantana will regrow. Bulldozing or slashing can remove large bushes, and help access through infestations. Avoid disturbing large areas at any one time to avoid leaving large areas of bare ground, risking soil erosion. Revegetate and monitor bare areas for regrowth. Pink flowered lantana is easier to control with herbicide. Red flowered varieties are harder to kill. Cut stems off at about 15 cm from the ground. Apply herbicide to the cut surface of the stump within 15 seconds. Treat every cut stem because lantana regrows vigorously from untreated stems. Stems and trunks can be stacked on site should no fruits be present. If fruits are present, they should be bagged and taken to a licensed green waste facility.
Lycium ferocissimum	Pushing out the plants is the cheapest way to control mature thickets. Remove as many of the roots as possible and burn. Removal of the roots is much easier and more effective when the soil is moist. It is important to destroy all plant material after physical removal because: ▪ Dead branches still pose a problem because of their thorns and they can harbor pest animals. ▪ Unripe fruit on cut branches can still ripen and produce seed ▪ Broken root fragments may sucker and produce new growth. Stems and trunks can be stacked on site should no fruits be present. If fruits are present, they should be bagged and taken to a licensed green waste facility.
Olea europaea subsp. *cuspidata*	Successful weed control requires follow up after the initial efforts. This means looking for and killing regrowth or new seedlings. Using a combination of control methods is usually more successful. Aim to control plants before they fruit. Use the cut and paint method on established plants up to 10 cm diameter. Use stem injection for plants with a stem >10 cm diameter. African olive re-sprouts from the base if it is burnt or cut down. Re-spray new growth. Stems and trunks can be stacked on site should no fruits be present. If fruits are present, they should be bagged and taken to a licensed green waste facility.
Senecio madagascariensis	Pull out individual plants in small, isolated patches or sensitive environmental areas. Wear gloves to protect skin from the plant's poisons. Bag and dispose of the pulled-out plants. Flowering plants can be spot sprayed with herbicides containing aminopyralid or metsulfuron-methyl. If individuals have been sprayed, they can be left in situ where they will die. If they are physically removed, they should be placed in a plastic lined bin before being taken to a licensed green waste facility.

5. References

Abergeldie Complex Infrastructure (2020) Sydney International Speedway, Construction Flora and Fauna Management Sub-plan

Bureau of Meteorology (BOM) (2020) Horsley Park, New South Wales, November 2020 Daily Weather Observations http://www.bom.gov.au/climate/dwo/IDCJDW2062.latest.shtml

Department of Planning, Industry and Environment (DPIE) (2020) NSW Bionet. The website of the Atlas of NSW Wildlife. http://www.bionet.nsw.gov.au/

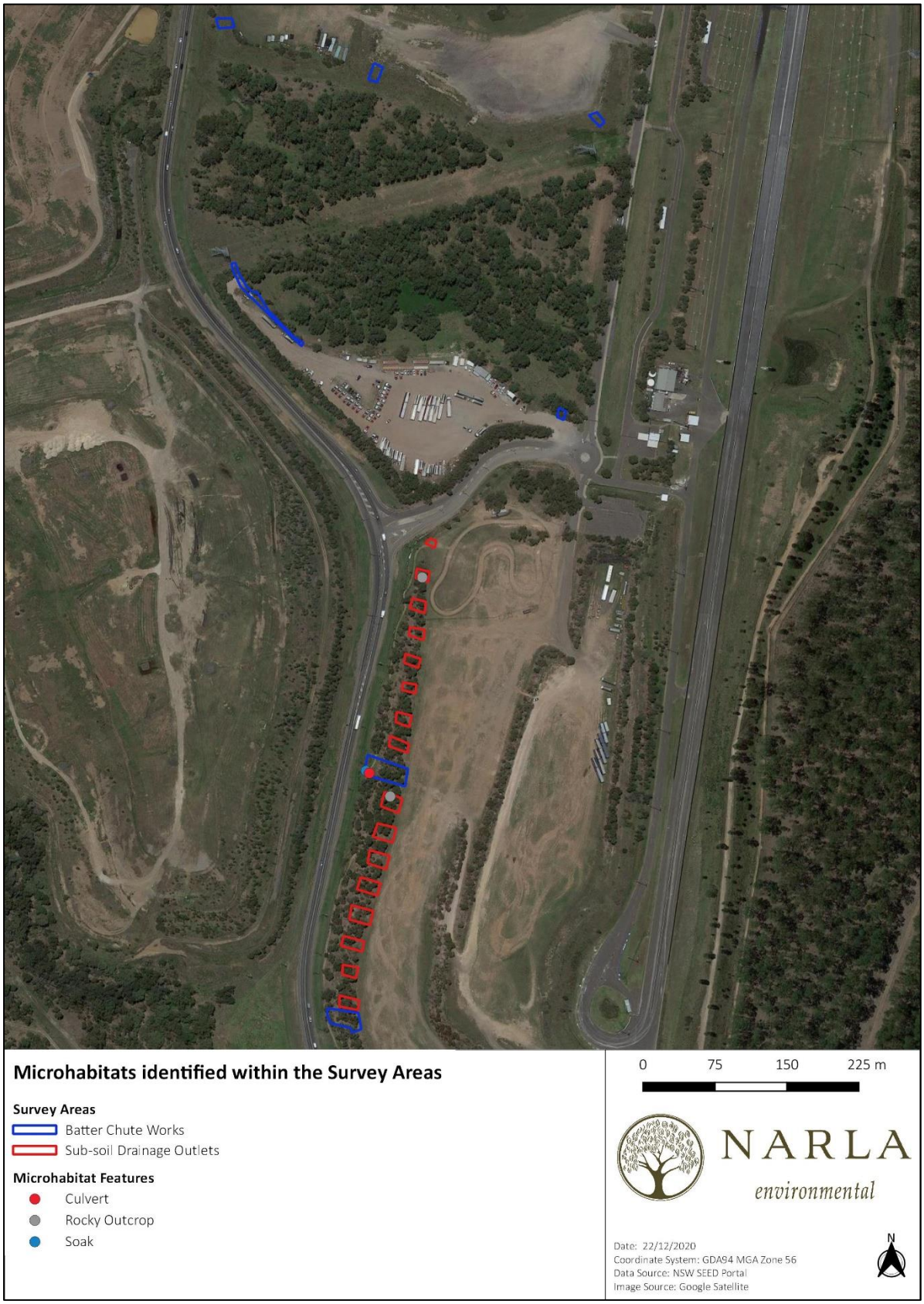
Department of Primary Industries (DPI) (2020) NSW Weedwise https://weeds.dpi.nsw.gov.au/

Roads & Traffic Authority (RTA) (2011) Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects. Revision 0/September 2011

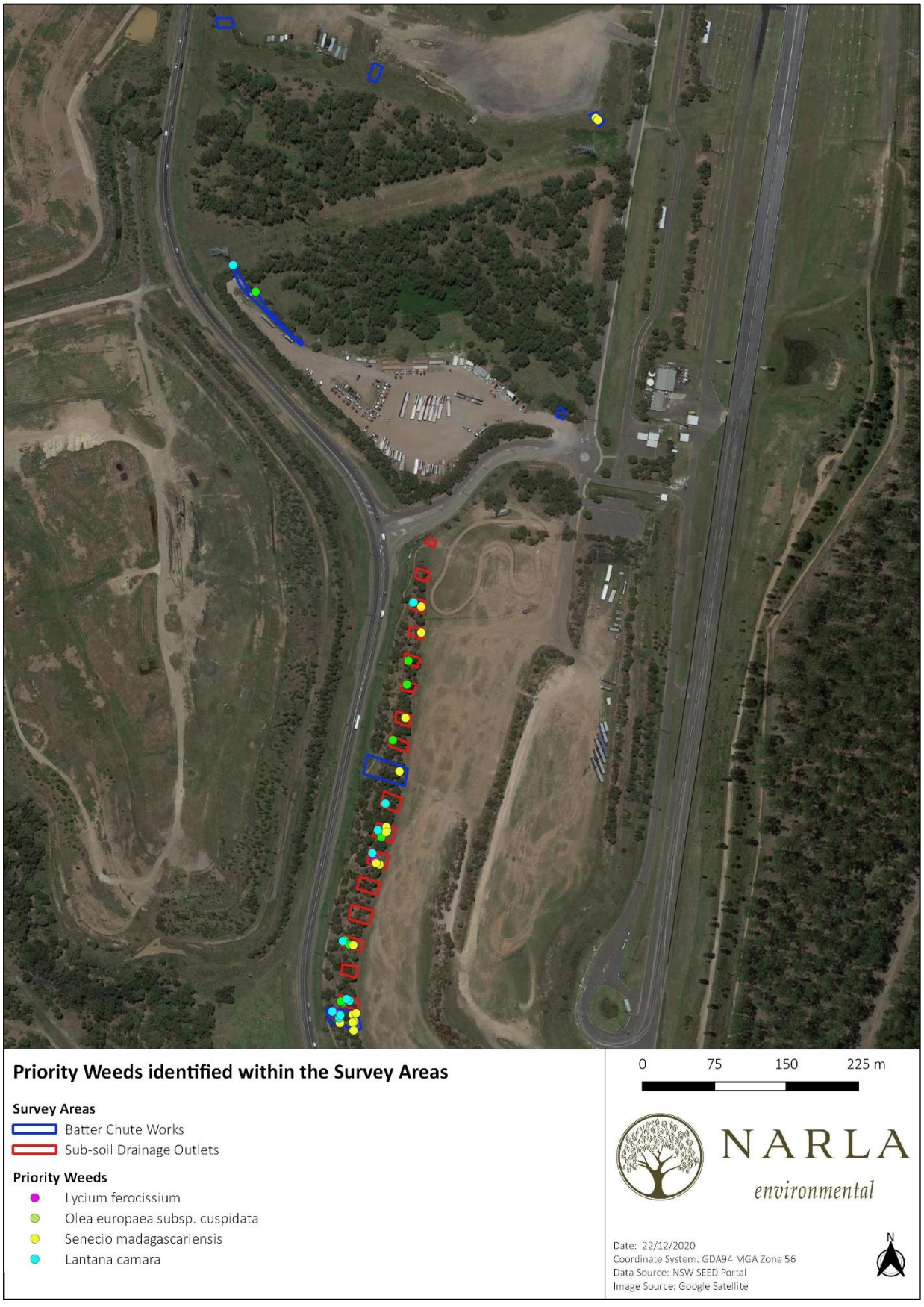
6. Appendix

Appendix A – Pre-clearing Survey Map: Microhabitat Features
Appendix B – Pre-clearing Survey Map: Priority Weeds

Appendix A Pre-clearing Survey Map: Microhabitat Features



Appendix B Pre-clearing Survey Map: Priority Weeds



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Appendix C – BAM-C recalculation for proposed construction footprint

18 February 2021

Jessie Strange
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Sydney International Speedway – vegetation impacts and credit re-calculation

Introduction

Jacobs received a request from Sydney Metro to review the biodiversity impact calculations and credit obligation for the Sydney International Speedway major project that was detailed in the Sydney International Speedway Revised Biodiversity Development Assessment Report, submitted as part of the *Sydney International Speedway Amendment Report* (Sydney Metro, November 2020). The project was determined by the NSW Department of Planning, Industry and Environment on 23 December 2020.

Purpose of this memo

The purpose of the memo is to document the outcomes of a review of the project footprint to determine whether the credit obligation for the project (as calculated by the Biodiversity Assessment Method calculator (BAM-C)) would change in a hypothetical scenario where the project impacts detailed in the approved project were increased to reflect the addition of two small areas of vegetation clearance, which would be required to construct two batter chutes (see **Figure 1**).

Review of BAM-C

The review was undertaken by the following steps:

1. The original BAM-C case for the approved project (case number 00020140) was submitted to the consent authority in December 2020 and could not be edited. Therefore, for the purpose of this review, a new mock BAM-C case (case number 00023982) assessment (00023982/BAAS19068/21/00023983) was created. The new mock assessment case was created as an exact replica of the original assessment case. All calculations were checked against the original assessment case before changing the impact areas to ensure that no BAM-C system updates had caused a change in VI score and credit calculation. No differences were identified.

2. The vegetation impact calculation with the additional areas required for the modified construction area of the project batter chutes (see **Figure 1**) increased the projects direct impact to native vegetation and threatened species habitat, as shown in Table 1. These areas were incorporated into the BAM-C for the vegetation zone (zone 4) and the species-credit species (Southern Myotis) affected. The updated impact areas did not change the credit requirements as assessed for the approved project.

Table 1: Revision of biodiversity impacts for Speedway batter chute clearing

Biodiversity value	Credit type	Approved project		Revision for batter chute clearing		
		Impact	Credits	Change	Impact	Credits
PCT 850: Grey Box - Forest Red Gum grassy woodland on shale of the southern Cumberland Plain, Sydney Basin Bioregion – Revegetation (Vegetation zone 4)	Ecosystem	0.059 ha (586 m2)	1	+ 318.2 m^2	0.09 ha (904.2 m^2)	1
Southern Myotis (*Myotis macropus*)	Species	0.005 ha (51 m2)	1	+ 163.4 m^2	0.021 ha (214.4 m^2)	1

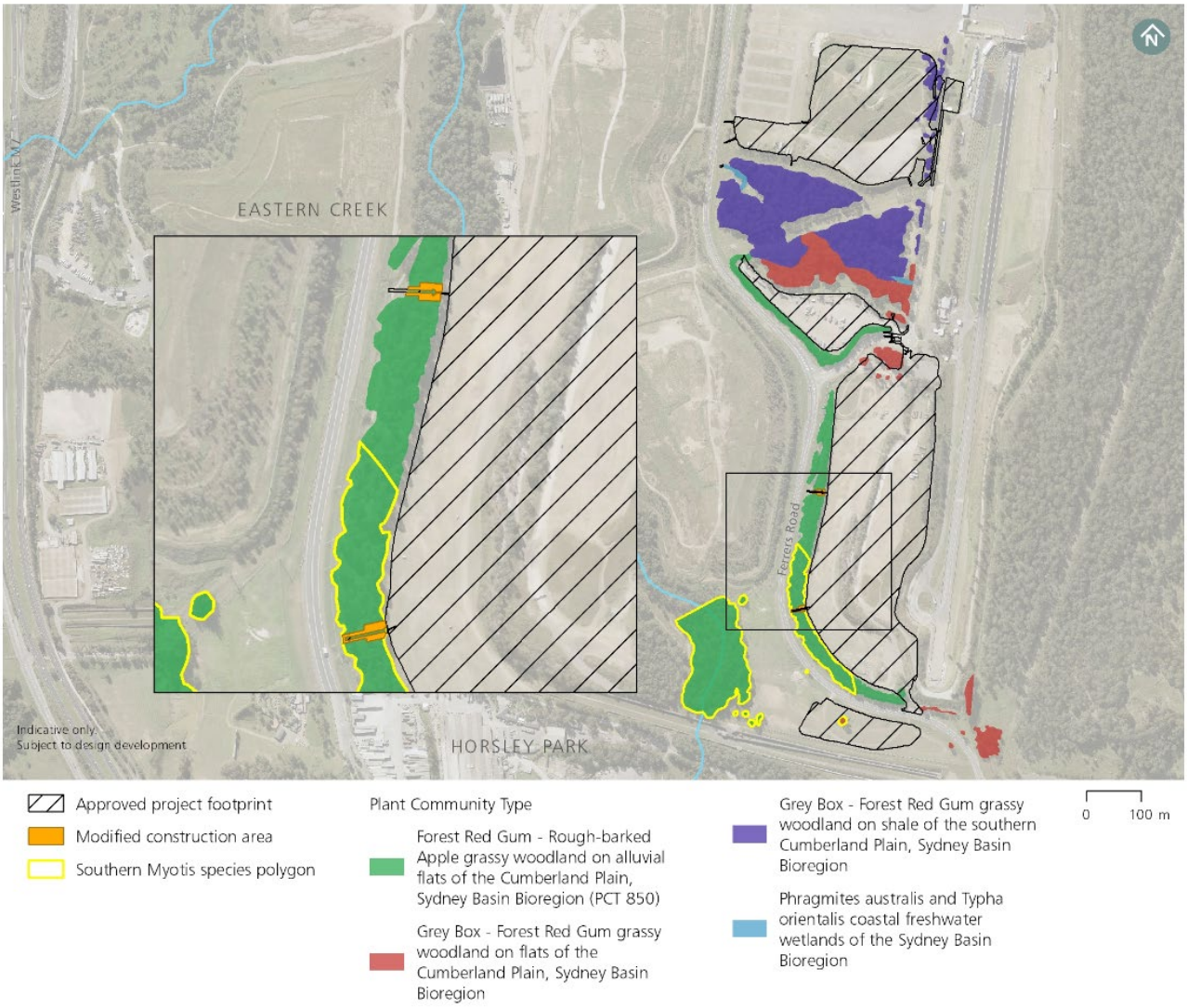

Figure 1: Project footprint showing the modified construction area and impacts

Conclusion

The result of the BAM-C impact and credit revision demonstrates that the increase in clearing required for the batter chutes would not have increased the project's offset credit obligation if it had been included in the original impact assessment for the approved project.

Yours sincerely

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Appendix A – Mock BAM-C credit summary report (February 2021 revision)

BAM Credit Summary Report

Proposal Details

Assessment Id
00023982/BAAS19068/21/00023983

Proposal Name
Sydney International Speedway - impact review

BAM data last updated *
21/12/2020

Assessor Name
Brenton Hays

Report Created
16/02/2021

BAM Data version *
36

Assessor Number
BAAS19068

BAM Case Status
Open

Date Finalised
To be finalised

Assessment Revision
0

Assessment Type
Major Projects

* Disclaimer: BAM data last updated may indicate either complete or partial update of the BAM calculator database. BAM calculator database may not be completely aligned with Bionet.

Ecosystem credits for plant communities types (PCT), ecological communities & threatened species habitat

Zone	Vegetation zone name	TEC name	Current Vegetation integrity score	Change in Vegetation integrity (loss / gain)	Area (ha)	BC Act Listing status	EPBC Act listing status	Species sensitivity to gain class (for BRW)	Biodiversity risk weighting	Potential SAII	Ecosystem credits
Cumberland shale hills woodland											
3	850_Poor	Cumberland Plain Woodland in the Sydney Basin Bioregion	15.2	15.2	0.24	Critically Endangered Ecological Community	Critically Endangered	High Sensitivity to Potential Gain	2.50	TRUE	2

4	850_Revegetation	Cumberland Plain Woodland in the Sydney Basin Bioregion	23.9	23.9	0.09	Critically Endangered Ecological Community	Critically Endangered	High Sensitivity to Potential Gain	2.50	TRUE	1
										Subtotal	**3**
Cumberland shale plains woodland											
1	849_Moderate	Cumberland Plain Woodland in the Sydney Basin Bioregion	18.7	18.7	0.01	Critically Endangered Ecological Community	Critically Endangered	High Sensitivity to Potential Gain	2.50	TRUE	1
2	849_Poor	Cumberland Plain Woodland in the Sydney Basin Bioregion	11.3	11.3	0.06	Critically Endangered Ecological Community	Critically Endangered	High Sensitivity to Potential Gain	2.50	TRUE	0
										Subtotal	**1**
Phragmites australis and Typha orientalis coastal freshwater wetlands of the Sydney Basin Bioregion											
5	1071_Drain	Not a TEC	44.4	44.4	0.01			High Sensitivity to Potential Gain	2.00		1
										Subtotal	**1**
										Total	**5**

Species credits for threatened species

Vegetation zone name	Habitat condition (Vegetation Integrity)	Change in habitat condition	Area (ha)/Count (no. individuals)	BC Act Listing status	EPBC Act listing status	Biodiversity risk weighting	Potential SAII	Species credits

Myotis macropus / Southern Myotis (Fauna)								
850_Revegetation	23.9	23.9	0.02	Vulnerable	Not Listed	2	False	1
							Subtotal	**1**