

18 March 2025

Rebecca Elliott
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Dear Rebecca,

**Planning Proposal for the Tomago Industrial Site
Biodiversity Review**

1. Background

Northbank Enterprise Hub Pty Ltd (NEH) has engaged MC² Environmental Consulting (MC²) to prepare the biodiversity component of a Planning Proposal related to the Tomago Industrial Site ("the Planning Proposal").

The Tomago Industrial Site is a designated state significant precinct under Appendix 2 of *State Environmental Planning Policy (Precincts – Regional) 2021* (Regional Precincts SEPP). The Tomago Industrial Site includes land zoned as IN1 (General Industrial), E2 (Environmental Conservation) and SP2 (Infrastructure).

The Planning Proposal seeks to amend the Regional Precincts SEPP, by way of the following:

- The introduction of the additional land uses at Clause 7 of Appendix 2 of the Regional Precincts SEPP to broaden the available industrial and complementary land uses within the Tomago Industrial Site;
- Amendment of the current IN1 (General Industrial) zone to E4 (General Industrial) aligning with the NSW Employment Zones Reforms; and
- A separate new clause to permit Specialised Retail Premises as an additional permitted land use constrained within the NEH land holdings within the Tomago Industrial Site.

The Planning Proposal does not affect the E2 (Environmental Conservation) and SP2 (Infrastructure) zoned land within the Tomago Industrial Site.

The broad intention of the Planning Proposal is to respond to current and emerging industrial land use trends. The Planning Proposal will consolidate relevant outcomes from the NSW Employment Zones Reforms with additional permitted land uses that are complementary to contemporary industrial land use trends.

This Biodiversity Review considers the implications of the proposed amendments to the Regional Precincts SEPP on biodiversity values within and immediately surrounding the Tomago Industrial Site.

2. Methodology

2.1. Basis of Assessment

The Planning Proposal applies to all land within the Tomago Industrial Site that is currently zoned as IN1 (“the Subject Land”). As prescribed by Clause 8 under Appendix 2 of the Regional Precincts SEPP, the following land uses are permissible (with consent) in zone IN1:

“aquaculture; boat construction facilities; boat repair facilities; boat launching ramps; commercial port facilities; depots; drainage; earthworks; educational establishments; fill; freight transport facilities; hazardous industries; hazardous storage establishments; heavy industries; jetties; light industries; marinas; materials recycling or recovery centres; offensive industries; offensive storage establishments; office premises; signage; truck depots; vehicle body repair workshops; vehicle repair stations; warehouses or distribution centres; waste management facilities”

In addition, environmental protection works are permissible (without consent) in zone IN1. The permissible land uses within zone IN1 represents the Base Case for this assessment. It is not necessary to re-assess the biodiversity impacts of the Base Case, as these land uses can already be carried out under existing planning controls.

Most of the land uses under the Base Case would entail clearing the land of vegetation. The “Ecological Assessment for the Northbank Enterprise Hub” (Ecobiological, 2012) considered the majority of land within the Subject Site. The findings of this study are indicative of direct impacts to biodiversity values, which would occur under the Base Case. The Subject Land has previously been used for agriculture and as a result, exotic grassland is the dominant vegetation community. However, there are remnant areas of native vegetation, including listed threatened ecological communities. The remnant native vegetation was assessed by Ecobiological (2012) as having high vegetation significance and low to medium habitat values. Areas of exotic grassland have low vegetation significance and low habitat values.

The majority of land within the Subject Site is authorised for disturbance pursuant to existing development consents, including MP07_0086 and MP10_0185 held by NEH. Even if such consents were not already in place, the existing IN1 zoning enables land uses that involve land disturbance. Since the Planning Proposal does not seek to increase the area of land that could be disturbed, there will be no further direct impacts and as such, the preceding discussion of direct impacts is provided only for context.

Notwithstanding, the Planning Proposal seeks to facilitate additional land uses on the Subject Land, which warrants consideration of any indirect impacts that may result from these additional land uses.

Contemporary environmental planning instruments generally utilise the E4 (General Industrial) zoning rather than the earlier IN1 zoning. Although IN1 is a predecessor of E4, the more contemporary E4 zoning generally permits a greater range of land uses. The land to the north and south of the site has already been contemporised to an E4 zoning. The Planning Proposal seeks to facilitate the following additional land uses (which are generally permissible in zone E4) on the Subject Land:

- Crematoria;
- Environmental facilities;
- Flood mitigation works;
- General industries;
- Goods repair and reuse premises;
- Industrial training facilities;
- Landscaping material supplies;
- Local distribution premises;
- Mortuaries;
- Roads;
- Rural supplies;
- Service stations;
- Specialised retail premises;
- Takeaway food and drink premises;
- Transport depots; and
- Water supply systems.

2.2. Indirect Impacts

Based on the location of the Subject Site and the surrounding biodiversity values, the following indirect impacts warrant consideration:

- Noise emissions;
- Light emissions;
- Emission of air pollutants;
- Uncontrolled discharges to water, including erosion;
- Alteration of flood regimes;
- Traffic generation;
- Litter; and
- Introduction of weeds and feral animals.

Potential biodiversity impacts will be unique for each proposed development, and detailed assessments will need to be undertaken on a case-by-case basis during the development application (DA) process. Notwithstanding, a risk screening exercise has been undertaken to determine the potential for the proposed additional land uses (listed in **Section 2.1**) to cause indirect impacts beyond those of the Base Case (i.e. the permissible land uses in zone IN1). Similar land uses have been considered collectively for assessment purposes.

This risk screening is presented in full in **Appendix A**, and the findings are summarised in **Section 3**.

3. Summary of Findings

3.1. Noise Emissions

Noise emissions have the potential to affect fauna behaviour. If noise levels are sufficiently elevated, it may result in displacement of fauna to areas further away from noise sources. The Subject Site is located within an existing industrial area and as such, fauna are exposed to pre-existing industrial noise.

The additional land uses sought by the Planning Proposal are unlikely to generate higher noise levels than the Base Case (which includes Heavy Industry). Therefore, the Planning Proposal does not pose a higher risk of indirect impacts due to noise emissions.

Development Consent MP07_0086 (held by NEH) includes noise limits which future land use would need to comply with.

3.2. Light Emissions

Light emissions have the potential to affect fauna behaviour through direct glare or increased illumination at night.

Most of the additional land uses sought by the Planning Proposal would operate primarily during day time. Night lighting for such land uses would be minimal. None of the additional land uses are likely to generate light emissions greater than the land uses under the Base Case. Therefore, the Planning Proposal does not pose a higher risk of indirect impacts due to light emissions.

3.3. Emission of Air Pollutants

Elevated concentrations of air pollutants may be injurious to animal health. The Subject Site is located within an existing industrial area and as such, fauna are subject to background levels of air pollution.

The Planning Proposal involves certain land uses (such as general industry and crematoria) which may generate air pollution due to their use of combustion processes. However, other industrial activities that involve combustion are permissible under the Base Case. The Planning Proposal does not inherently pose a higher risk of air pollution, but air quality management will need to be a key consideration for certain land uses during the development application (DA) process.

3.4. Uncontrolled Discharges to Water

Water pollution may degrade the quality of the nearby aquatic ecosystems (such as the Hunter River and wetland areas).

Most of the additional land uses sought by the Planning Proposal are unlikely to result in uncontrolled discharges. Development for the purpose of landscaping material supplies may involve a higher risk of pollution due to their use of outdoor material stockpiles. Service stations may also involve a higher risk of pollution due to the large quantities of hydrocarbon fuels stored on-site. However, this additional risk can be minimised through the implementation of spill containment and clean-up measures. Therefore, the Planning Proposal does not inherently involve a higher risk of indirect impacts due to uncontrolled discharges to water, but this risk will need to be considered on a case-by-case basis during the DA process.

3.5. Alteration of Flood Regimes

Given the presence of wetlands near the Subject Site, changes to flood regimes (i.e. flood depths, velocities and frequencies) may affect the habitat values in these areas.

The Planning Proposal seeks to permit flood mitigation works, which are designed to alter flood regimes. Proposals for this land use will require detailed flooding assessments during the DA process to ensure there are no unintended impacts on nearby wetland areas.

It should be noted that 'fill' is permissible under the Base Case. Any raising of land within the floodplain of the Hunter River has the potential to alter flood regimes. Developments involving land raising would generally require a flooding assessment during the DA process. The DA process for flood mitigation works would be comparable.

The other land uses sought by the Planning Proposal are unlikely to alter flood regimes.

3.6. Traffic Generation

Developments that generate additional traffic may induce a higher risk of vehicle strike.

Traffic movements associated with industrial developments generally consist of employees, suppliers and commercial clients. Most of the additional land uses sought by the Planning Proposal are unlikely generate materially different traffic volumes or characteristics. However, the Planning Proposal includes the following additional land uses which may generate traffic of a different character:

- Environmental facilities;
- Goods repair and reuse facilities;
- Takeaway food and drink premises; and
- Service stations.

These land uses are more likely to attract the general public, whereas traffic associated with the Base Case would be predominantly industrial in character. Certain proposed land uses have the potential to generate additional traffic to the Subject Site. A traffic impact assessment has been undertaken by The Transport Planning Partnership (TTPP, 2025) which predicts the following additional traffic movements:

- Takeaway food and drink premises may generate 41 additional vehicle trips per hours (with 19 trips being additional traffic to the local road network and the other 22 trips being passer-by traffic that takes a detour to the Subject Site); and
- Service stations may generate an additional 94 trips during the AM peak and 191 trips during the PM peak, with 50% of these being additional traffic to the road network.

Data indicates that these land uses are complementary, and that the presence of takeaway food and drink premises does not significantly increase the traffic generated by a service station alone (TTPP, 2025).

Whether there is an increased risk of vehicle strike is influenced by more factors than simply traffic volumes. Takeaway food and drink premises and service stations are most likely to be constructed adjacent to Tomago Road, rather than parts of the Subject Site near the Hunter River or existing wetlands.

If there is an increased risk of vehicle strike, traffic management measures such as speed limits and warning signs can be implemented to minimise such risk. With appropriate traffic management measures, the Planning Proposal is not expected result in elevated risk of vehicle strike.

3.7. Litter

Litter may pose a hazard to fauna through ingestion or entrapment. Takeaway food and drink premises is the only proposed land use with a higher potential for generating litter than the Base Case. This risk can be managed through provision of waste disposal facilities.

The other additional land uses sought by the Planning Proposal are unlikely to generate significant litter. As such, the Planning Proposal does not pose a significant risk of indirect impacts due to litter.

3.8. Weed and Feral Animals

Introduced weed and feral animal species may compete with native flora and fauna species. The Planning Proposal includes landscaping material supplies and rural supplies, which may involve a higher risk of introducing weeds than other industrial land uses. Proponents of these land uses will need to adopt adequate controls to manage the risk of weeds being introduced via landscaping materials. If appropriate controls are implemented, the risk can be maintained at acceptable levels.

The other land uses sought by the Planning Proposal do not involve a greater risk of introducing weeds or feral animals than the Base Case.

4. Conclusion

The Planning Proposal seeks for additional land uses to be permissible on the Subject Land, which is currently zoned as IN1. These land uses are generally permissible within zone E4, which is the contemporary equivalent of zone IN1.

This biodiversity review has determined that the additional land uses generally do not pose a higher risk of indirect biodiversity impacts than the Base Case. **Appendix A** suggests environmental controls for the limited circumstances where the additional land uses may involve greater impacts.

It should be noted that the Planning Proposal only seeks additional categories of development permissible with consent, and that the additional categories are consistent with the contemporary E4 zoning under the latest employment zones land reforms.

As such, proposals for these land uses will be subject to further assessment of biodiversity impacts during the DA process. For present purposes, the Planning Proposal does not involve any land uses that are incompatible with the surrounding biodiversity values.

5. References

- The Transport Planning Partnership (2025), *Tomago Estate Traffic Impact Assessment*. Prepared for Northbank Enterprise Hub Pty Ltd.

If you have any questions in relation to this report, please feel free to contact me at andrew@mc2enviro.com.au.

Yours sincerely,

A handwritten signature in black ink, appearing to be 'AW', enclosed within a light gray rectangular border.

Andrew Wu
Principal Consultant

Appendix A

Risk Screening

Land Use	Form of Indirect Impact	Assessment	Additional Controls
Crematoria Mortuaries	Noise emissions	These land uses are unlikely to generate higher noise levels than the industrial land uses permitted under the Base Case.	Not applicable
	Light emissions	These land uses are unlikely to involve night operations.	Not applicable
	Emissions of air pollutants	Crematoria have the potential to emit air pollutants due to their use of combustion processes. Emissions from crematoria are not expected to materially differ from those of other industries that involve combustion (which are permissible under the Base Case). Notwithstanding, any proposals to develop crematoria need to be subject to a detailed air quality assessment during the DA process. Mortuaries are unlikely to generate significant air pollution.	Detailed assessment of emissions during the DA process (for crematoria).
	Discharges to water	These land uses are unlikely to result in uncontrolled discharges to water.	Not applicable
	Alteration of flood regimes	These land uses are unlikely to alter flood regimes.	Not applicable
	Traffic generation (vehicle strike)	These land uses are unlikely to generate significant traffic.	Not applicable
	Litter	These land uses are unlikely to generate litter.	Not applicable
	Introduction of weeds and feral animals	These land uses are unlikely to introduce weeds and feral animals.	Not applicable
Environmental facilities	Noise emissions	This land use is unlikely to generate significant noise levels.	Not applicable
	Light emissions	This land use is unlikely to involve lighting.	Not applicable
	Emissions of air pollutants	This land use is unlikely to generate significant air pollution.	Not applicable

Land Use	Form of Indirect Impact	Assessment	Additional Controls
	Discharges to water	This land use is unlikely to result in uncontrolled discharges to water.	Not applicable
	Alteration of flood regimes	This land use is unlikely to alter flood regimes.	Not applicable
	Traffic generation (vehicle strike)	This land use includes recreational facilities and as such, may attract members of the general public. However, due to the Subject Site being located within an industrial area, it is unlikely to become a major tourist attraction. Traffic generation is unlikely to exceed that of the Base Case.	Speed limits and signage may be required to manage vehicle related risks.
	Litter	This land use is more likely to attract members of the general public, whereas the Base Case is more likely to only attract employees and business customers. The general public may pose a higher risk of litter, but this risk can be managed through appropriate waste disposal facilities.	Provision of adequate waste disposal facilities
	Introduction of weeds and feral animals	This land use is unlikely to result in weed infestation. Due to the appeal of this land use to the general public, risks to native species may arise from domesticated animals (i.e. pets). Restrictions on access for pets may be appropriate in some circumstances.	Signage may be required to manage animal-related risks.
Flood mitigation works	Noise emissions	This land use is unlikely to generate significant noise levels.	Not applicable
	Light emissions	This land use is unlikely to involve lighting.	Not applicable
	Emissions of air pollutants	This land use is unlikely to generate significant air pollution.	Not applicable
	Discharges to water	This land use is unlikely to result in uncontrolled discharges to water.	Not applicable

Land Use	Form of Indirect Impact	Assessment	Additional Controls
	Alteration of flood regimes	This land use is intended to alter local flood conditions. Every proposed flood mitigation work will require detailed assessment during the DA process to ensure there are no unintended impacts on nearby wetland areas.	Detailed flood impact assessment is required during the DA process.
	Traffic generation (vehicle strike)	This land use is unlikely to generate significant traffic.	Not applicable
	Litter	This land use is unlikely to generate litter.	Not applicable
	Introduction of weeds and feral animals	This land use is unlikely to introduce weed or feral animal species.	Not applicable
General industries Industrial training facilities	Noise emissions	The Base Case includes heavy industries and light industries. General industries and industrial training facilities are unlikely to result in greater indirect impacts than the Base Case.	Not applicable
	Light emissions		
	Emissions of air pollutants		
	Discharges to water		
	Alteration of flood regimes		
	Traffic generation (vehicle strike)		
	Litter		
	Introduction of weeds and feral animals		

Land Use	Form of Indirect Impact	Assessment	Additional Controls
Goods repair and reuse facilities	Noise emissions	These land uses are unlikely to generate higher noise levels than the industrial land uses permitted under the Base Case.	Not applicable
	Light emissions	These land uses are unlikely to involve significant night lighting.	Not applicable
	Emissions of air pollutants	These land uses are unlikely to generate greater air pollution than the industrial land uses permitted under the Base Case.	Not applicable
	Discharges to water	These land uses are unlikely to result in uncontrolled discharges to water.	Not applicable
	Alteration of flood regimes	These land uses are unlikely to alter flood regimes.	Not applicable
	Traffic generation (vehicle strike)	Compared to the Base Case, these land uses are more likely to attract members of the general public (as opposed to employees or commercial clients). With appropriate signage, the risk of vehicle strike can be minimised.	Depending on location, it may be appropriate to install road signs alerting motorists to wildlife presence.
	Litter	These land uses are unlikely to generate significant litter.	Not applicable
	Introduction of weeds and feral animals	These land uses are unlikely to introduce weed or feral animal species.	Not applicable
Landscaping material supplies	Noise emissions	These land uses are unlikely to generate higher noise levels than the industrial land uses permitted under the Base Case.	Not applicable
Rural supplies	Light emissions	These land uses are unlikely to involve significant night lighting.	Not applicable
	Emissions of air pollutants	These land uses are unlikely to generate greater air pollution than the industrial land uses permitted under the Base Case.	Not applicable

Land Use	Form of Indirect Impact	Assessment	Additional Controls
	Discharges to water	These land uses may involve higher risk of uncontrolled discharges if there are outdoor material stockpiles (e.g. soil, mulch). This risk can be adequately managed through flow diversion structures and sediment controls (e.g. bunds, swales, silt fences).	The risk of off-site discharges will need to be assessed during the DA process and controls may need to be imposed via conditions of development consent.
	Alteration of flood regimes	These land uses are unlikely to alter flood regimes.	Not applicable
	Traffic generation (vehicle strike)	These land uses are unlikely to increase the risk of vehicle strike compared to the Base Case.	Not applicable
	Litter	These land uses are unlikely to generate significant litter.	Not applicable
	Introduction of weeds and feral animals	Proponents of these land uses will need to demonstrate that there are adequate controls to manage the risk of weeds being introduced via landscaping materials. These land uses are unlikely to introduce feral animal species.	Consideration of biosecurity risk will be required during the DA process.
Local distribution premises	Noise emissions	The Base Case includes depots and freight transport facilities. Local distribution premises are unlikely to result in greater indirect impacts than the Base Case.	Not applicable
	Light emissions		
	Emissions of air pollutants		
	Discharges to water		
	Alteration of flood regimes		
	Traffic generation (vehicle strike)		

Land Use	Form of Indirect Impact	Assessment	Additional Controls
	Litter		
	Introduction of weeds and feral animals		
Roads	Noise emissions	The land uses permissible under the Base Case generally involve the construction of hardstand/paved areas. The development of roads would not materially differ from hardstand areas in terms of indirect impacts to biodiversity.	Not applicable
	Light emissions		
	Emissions of air pollutants		
	Discharges to water		
	Alteration of flood regimes		
	Traffic generation (vehicle strike)		
	Litter		
	Introduction of weeds and feral animals		
Service stations	Noise emissions	This land use is unlikely to generate higher noise levels than the Base Case.	Not applicable
	Light emissions	Whilst this land use may involve night lighting, such lighting is unlikely to be of high intensity or directed upwards (i.e. likely to cause significant light spill). This land use is also unlikely to result in greater lighting impacts than the industrial uses under the Base Case.	Depending on location, lighting impacts may require detailed assessment during the DA process.

Land Use	Form of Indirect Impact	Assessment	Additional Controls
	Emissions of air pollutants	This land use is unlikely to generate greater air pollution than the Base Case.	Not applicable
	Discharges to water	This land use may involve higher risk of hydrocarbon spills than the Base Case. However, this is a risk that can be managed through appropriate control measures.	Proponents of this land use will need to implement appropriate measures for the containment and clean-up of hydrocarbon spills during the DA process.
	Alteration of flood regimes	This land use is unlikely to alter flood regimes.	Not applicable
	Traffic generation (vehicle strike)	The Traffic Impact Assessment (TTPP, 2025) for the Planning Proposal predicted that this land use may generate an additional 94 trips during the AM peak and 191 trips during the PM peak, with 50% of these being additional traffic to the road network. This land use is likely to be sited along Tomago Road, which is separated from areas of biodiversity value by existing industrial development.	If there is an increased risk of vehicle strike, traffic management measures such as speed limits and warning signs can be implemented to minimise such risk.
	Litter	This land use is unlikely to generate significant litter.	Not applicable
	Introduction of weeds and feral animals	This land use is unlikely to introduce weed or feral animal species.	Not applicable
Specialised retail premises	Noise emissions	The Base Case includes comparable land uses such as depots, heavy industries, truck depots, and warehouses or distribution centres. Specialised retail premises are unlikely to result in greater indirect impacts than these land uses that are currently permissible.	Not applicable
	Light emissions		
	Emissions of air pollutants		
	Discharges to water		

Land Use	Form of Indirect Impact	Assessment	Additional Controls
	Alteration of flood regimes		
	Traffic generation (vehicle strike)		
	Litter		
	Introduction of weeds and feral animals		
Takeaway food and drink premises	Noise emissions	This land use is unlikely to generate higher noise levels than the Base Case.	Not applicable
	Light emissions	Whilst this land use may involve night lighting, such lighting is unlikely to be of high intensity or directed upwards (i.e. likely to cause significant light spill). This land use is also unlikely to result in greater lighting impacts than the industrial uses under the Base Case.	Depending on location, lighting impacts may require detailed assessment during the DA process.
	Emissions of air pollutants	This land use is unlikely to generate higher air pollution than the Base Case.	Not applicable
	Discharges to water	This land use is unlikely to cause uncontrolled discharges to water.	Not applicable
	Alteration of flood regimes	This land use is unlikely to alter flood regimes.	Not applicable
	Traffic generation (vehicle strike)	The traffic impact assessment (TTPP, 2025) prepared for the Planning Proposal has predicted that this land use may generate 41 additional trips per hour to the Subject Site. This land use is likely to be sited along Tomago Road, which is separated from areas of biodiversity value by existing industrial development.	If there is an increased risk of vehicle strike, traffic management measures such as speed limits and warning signs can be

Land Use	Form of Indirect Impact	Assessment	Additional Controls
			implemented to minimise such risk.
	Litter	This land use may be more likely to generate litter than the Base Case. However, this risk can be managed through appropriate waste disposal facilities.	Proponents of this land use will need to implement adequate waste disposal facilities.
	Introduction of weeds and feral animals	This land use is unlikely to introduce weeds or feral animal species.	Not applicable
Transport depots	Noise emissions	The Base Case includes comparable land uses such as truck depots, vehicle body repair workshops and vehicle repair stations. Transport depots are unlikely to result in greater indirect impacts than these land uses that are currently permissible.	Not applicable
	Light emissions		
	Emissions of air pollutants		
	Discharges to water		
	Alteration of flood regimes		
	Traffic generation (vehicle strike)		
	Litter		
	Introduction of weeds and feral animals		
Water supply systems	Noise emissions	This land use is unlikely to generate higher noise levels than the Base Case.	Not applicable
	Light emissions	This land use is unlikely to involve significant night lighting.	Not applicable

Land Use	Form of Indirect Impact	Assessment	Additional Controls
	Emissions of air pollutants	This land use is unlikely to generate greater air pollution than the Base Case.	Not applicable
	Discharges to water	Off-site discharges are generally not a design feature of water supply systems, but may occur if there is a failure in the system (e.g. damaged pipes). Well designed water supply systems will include controls to minimise the likelihood of unintended discharges.	Measures to reduce the risk of uncontrolled discharges will need to be considered during the DA process.
	Alteration of flood regimes	This land use is unlikely to alter flood regimes.	Not applicable
	Traffic generation (vehicle strike)	This land use is unlikely to generate significant traffic.	Not applicable
	Litter	This land use is unlikely to generate litter.	Not applicable
	Introduction of weeds and feral animals	This land use is unlikely to introduce weed or feral animal species.	Not applicable