

7 Environmental scoping assessment

This chapter describes the process undertaken to scope the environmental assessment contained within this EIS. This process began with the preliminary scoping within the Scoping Report prepared for the Project (TfNSW, 2019d). It also describes the subsequent prioritisation of environmental issues following provision of the SEARs and consultation undertaken for the Project.

7.1 Overview

The Scoping Report prepared for the Project (TfNSW, 2019d) contained a preliminary environmental risk analysis undertaken for the Project. It identified and categorised the potential environmental issues to be considered in the EIS, based on a risk rating for each issue, in accordance with the former Department of Planning and Environment's *Scoping an Environmental Impact Statement, Draft Environmental Impact Assessment Guidance Series June 2017* (Department of Planning, Industry and Environment (DPIE), 2017). This guideline sets out a methodology which provides a consistent framework for identifying environmental, social and economic matters which are likely to be impacted by the Project and the activities which are likely to cause those impacts.

The environmental risk analysis was undertaken in accordance with the principles of the Australian and New Zealand standard *AS ISO 31000:2018 Risk Management – Guidelines*. This involved ranking the risks by identifying the consequence of the impact and the likelihood of each impact occurring. The definitions of the consequence levels used for the assessment are provided in **Table 7-1**, and the likelihood in **Table 7-2**. The risk matrix is provided in **Table 7-3**. This risk analysis was used to categorise issues as 'key' or 'other.'

Table 7-1 Risk analysis consequence definitions

Consequence	Description
Major	<ul style="list-style-type: none"> • long term detrimental impacts on the environment or population • large impact area • reportable incident to external agency • may result in large fines and prosecution; operational constraints • high level of community concern.
Moderate	<ul style="list-style-type: none"> • substantial temporary or minor long-term detrimental impacts on the environment or population • moderate impact area • reportable incident to external agency • action required by reportable agency • community interested.
Minor	<ul style="list-style-type: none"> • minor impacts on the environment or population • small impact area • no operational constraints • some local community interest.

Table 7-2 Risk analysis likelihood definitions

Likelihood	Description
Unlikely	Unlikely to happen
Possible	Could happen and has occurred elsewhere
Likely	Could easily happen and would probably occur

Table 7-3 Risk matrix

		Consequence		
		Major	Moderate	Minor
Likelihood	Unlikely	Medium	Medium	Low
	Possible	High	Medium	Low
	Likely	High	High	Medium

7.2 Summary of environmental issues to be considered

Using the framework described above, the preliminary environmental risk analysis undertaken for the Project in the Scoping Report is presented in **Table 7-4**. The risk analysis identifies an initial risk rating for each of the environmental issues without mitigation. A description of how the risk ratings were derived are found in the Scoping Report (TfNSW, 2019d).

Further information regarding the existing environment and potential impacts associated with each environmental issue, along with mitigation and management, are provided in the respective chapter for each environmental assessment in this EIS (refer Chapters 8 to 22). **Chapter 25** of this EIS then discusses the residual risk for each environmental issue.

Table 7-4 Preliminary environmental risk assessment

Environmental issue	Consequence	Likelihood	Risk rating
Traffic, transport and access	Major	Likely	High
Noise and vibration	Major	Likely	High
Aboriginal heritage	Moderate	Unlikely	Medium
Non-Aboriginal heritage	Major	Likely	High
Social and business impacts	Major	Likely	High
Landscape character, visual amenity and urban design	Moderate	Likely	High
Land use and property	Moderate	Possible	Medium
Biodiversity	Minor	Unlikely	Low
Soils, geology, groundwater and contamination	Major	Unlikely	Medium
Flooding, hydrology and water quality	Major	Unlikely	Medium
Air quality	Minor	Likely	Medium
Hazard and risk	Moderate	Unlikely	Medium
Waste and resources	Minor	Likely	Medium
Climate change and sustainability	Minor	Likely	Medium

7.3 Prioritisation of potential issues

Based on the preliminary environmental risk analysis outlined above, key issues for the Project have been identified as those with a risk ranking of high, while other issues are those with a risk ranking of medium or low.

The issues identified have been re-ordered in this EIS in accordance with the Secretary's environmental assessment requirements (SEARs) issued for the Project, and further investigations undertaken for this EIS. The revised issues are shown in **Table 7-5**. Key issues identified are addressed first in this EIS, followed by other issues.

Table 7-5 Revised key issues and other issues

Issue	Where addressed in this EIS
Key issues	
Urban design	Chapter 8
Landscape and visual	Chapter 9 Technical report 1 – Landscape character and visual
Land use and property	Chapter 10
Social	Chapter 11 Technical report 2 – Social
Traffic and transport	Chapter 12 Technical report 3 – Traffic, transport and access
Noise and vibration	Chapter 13 Technical report 4 – Noise and vibration
Non-Aboriginal heritage	Chapter 14 Technical report 5 – Non-Aboriginal heritage
Aboriginal heritage	Chapter 15 Technical report 6 – Aboriginal heritage
Other issues	
Biodiversity	Chapter 16
Soils, groundwater and contamination	Chapter 17
Flooding, hydrology and water quality	Chapter 18 Technical report 7 – Flooding, hydrology and water quality
Air quality	Chapter 19
Hazard and risk	Chapter 20
Waste and resources	Chapter 21
Climate change and sustainability.	Chapter 22

7.4 Format of assessment chapters

For the benefit of the reader, a standardised approach has been adopted for the structure of each of the assessment chapters. The purpose of a standardised chapter structure is to provide a clear and consistent approach to the assessment of environmental impacts within this EIS. The standard structure of sections for each assessment chapter is as follows:

1. Introduction
2. Method of assessment

3. Existing environment
4. Impact assessment
5. Mitigation and management

A general description of the purpose and content of each of these sections is provided in **Table 7-6**.

Table 7-6 Assessment chapter structure and content description

Section	Content description
Introduction	Provides an overview of the scope of the assessment for the chapter. It sets out the SEARs relevant to the assessment and describes where they have been addressed. Where applicable this section also provides reference to the relevant specialist report which have been prepared for the assessment.
Method of assessment	<p>Provides the methodology which has been applied to guide the assessment. This includes (but is not necessarily limited to):</p> <ul style="list-style-type: none"> the study area/area of investigation for the assessment applicable guidelines and standards which have been applied to the assessment key assumptions and limitations applied to the assessment. <p>For each environmental assessment there is an explanation of the approach to identifying impacts and assessing whether a potential impact is likely to be considered significant. Assessments can either be quantitative (relying on criteria, standards and thresholds) or qualitative (using certain scientific material, but ultimately making decisions based on professional judgement).</p>
Existing environment	<p>A description of the existing environment. Where applicable this is with reference to the supporting specialist report. This may include (but is not necessarily limited to):</p> <ul style="list-style-type: none"> key features and/or receptors which are relevant to the assessment background information/monitoring details of previous studies which contain relevant information.
Impact assessment	<p>An assessment of the impacts of the construction and operation of the Project within the context of the existing environment, in accordance with the method of assessment described. The level of detail and focus of the impact assessment is guided by the Project SEARs. Each matter has been assessed as either:</p> <ul style="list-style-type: none"> a 'Key Issue Assessment' in accordance with Desired Performance Outcome 3 (Assessment of Key Issues) of the SEARs (refer Appendix A) an 'Other Issue Assessment' where the impacts are reported in this EIS and which can typically be managed through routine mitigation and management measures. <p>Where existing criteria, guidance, environmental standards or assessment methodologies exist, the significance of an impact is based on that information. Where possible and/or necessary quantitative judgements about the significance of an impact is made using this information. Where no explicit guidance or information exists, qualitative judgements of the significance of an impact are made. Where qualitative judgements are required, some or all of the following impact characteristics are considered to understand the impact:</p> <ul style="list-style-type: none"> extent – the area potentially affected by the impact magnitude – the size or amount of the impact

Section	Content description
	<ul style="list-style-type: none"> • duration – how long the impact is likely to last • frequency – whether the impact is continuous, brief or intermittent • timing – if the impact occurs at a particularly sensitive time • permanence – whether the impact is permanent or temporary. <p>The judgement as to whether an impact is significant depends on the importance or sensitivity of the receptor (e.g. as defined by legislation, policy, standards or guidance) and the magnitude of the impact affecting it (as decided by quantitative or qualitative means).</p> <p>The impact assessment sections of each chapter deal with impacts from the Project only; potential cumulative impacts (i.e. those in conjunction with impacts from other surrounding projects) are addressed in Chapter 23 of this EIS.</p>
Mitigation and management	<p>Provides an analysis of how the potential environmental impacts can be avoided, minimised or managed.</p> <p>Performance outcomes and mitigation measures are summarised in this section.</p> <p>A Construction Environmental Management Framework has been developed for the Project (refer Chapter 24 of this EIS). CEMPs would be developed for the Project and align to this framework. The CEMPs would outline performance outcomes to be achieved and include the mitigation and management measures for construction of the Project.</p> <p>At the end of each mitigation and management section in this EIS, the likely residual impacts expected (post-mitigation) are outlined and a discussion of the acceptability of any residual impacts with reference to relevant standards or guidelines is provided.</p>