

# 1. General SEARs

Desired Performance Outcome	Requirement	Current Guidelines
<p><b>1. Environmental Impact Assessment Process</b></p> <p>The process for assessment of the proposal is transparent, balanced, well focussed and legal.</p>	<ol style="list-style-type: none"> <li>1. The Environmental Impact Statement must be prepared in accordance with Part 3 of Schedule 2 of the Environmental Planning and Assessment Regulation 2000 (the Regulation).</li> <li>2. It is the Proponent’s responsibility to determine whether the project needs to be referred to the Commonwealth Department of Agriculture, Water and the Environment (DAWE) for an approval under the Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act). If DAWE has determined that an approval is required under the EPBC Act, supplementary environmental assessment requirements may need to be issued to ensure a streamlined assessment under an Accredited Assessment can be achieved.</li> <li>3. The onus is on the Proponent to ensure legislative requirements relevant to the project are met.</li> </ol>	<p><a href="#">EPBC Act Environment Assessment Process</a> (SEWPAC, 2010)</p>
<p><b>2. Environmental Impact Statement</b></p> <p>The project is described in sufficient detail to enable clear understanding that the project has been developed through an iterative process of impact identification and assessment and project refinement to avoid, minimise or offset impacts so that the project, on balance, has the least adverse environmental, social and economic impact, including its cumulative impacts.</p>	<ol style="list-style-type: none"> <li>1. The EIS must include, but not necessarily be limited to, the following:               <ol style="list-style-type: none"> <li>(a) executive summary;</li> <li>(b) a description of the project, including key components and activities (including ancillary components and activities) required to construct and operate it including-                   <ul style="list-style-type: none"> <li>- project overview</li> <li>- site and route locations (including use of plans)</li> <li>- scope of works to construct the project, including key activities, description of methodologies, working hours, indicative plant and equipment to be used</li> <li>- timing of key construction activities</li> <li>- acquisition of privately owned, council and Crown land.</li> </ul> </li> <li>(c) a statement of the objective(s) of the project;</li> <li>(d) a summary of the strategic need for the project with regard to its critical State significance and relevant State Government policy;</li> <li>(e) an analysis of any feasible alternatives to the project.;</li> <li>(f) a description of feasible options within the project.;</li> <li>(g) a description of how alternatives to and options within the project were analysed to inform the selection of the preferred alternative / option. The description must contain sufficient detail to enable an understanding of why the preferred alternative to and options(s) within the project were selected;</li> <li>(h) a concise description of different construction methods that were analysed and preferred methods;</li> </ol> </li> </ol>	

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	<ul style="list-style-type: none"> <li>(i) a concise description of the general biophysical and socio-economic environment and changing land use in the area that is likely to be impacted by the project (including offsite impacts). Elements of the environment that are not likely to be affected by the project do not need to be described;</li> <li>(j) a demonstration of how the project design has been developed to avoid or minimise likely adverse impacts;</li> <li>(k) an assessment of key issues as identified in the risk assessment included in the scoping application and as amended in the 'Assessment of Key Issues' performance outcome;</li> <li>(l) a statement of and the quantification of outcomes and performance criteria the proponent will achieve for each key issue;</li> <li>(m) measures to avoid, minimise or offset impacts must be linked to the impact(s) they treat, so it is clear which measures will be applied to each impact;</li> <li>(n) consideration of the interactions between measures proposed to avoid or minimise impact(s), between impacts themselves and between measures and impacts;</li> <li>(o) an assessment of the relevant cumulative impacts of the project taking into account other projects that have been approved but where construction has not commenced, projects that have commenced construction, and projects that have recently been completed;</li> <li>(p) statutory context of the project as a whole, including: <ul style="list-style-type: none"> <li>- how the project meets the provisions of the <i>Environmental Planning &amp; Assessment Act 1979</i> and EP&amp;A Regulation;</li> <li>- a list of any approvals that must be obtained under any other Act or law before the project may lawfully be carried out;</li> </ul> </li> <li>(q) a chapter that synthesises the environmental impact assessment and provides: <ul style="list-style-type: none"> <li>- a succinct but full description of the project for which approval is sought;</li> <li>- a description of any uncertainties that still exist around design, construction methodologies and/or operational methodologies and how these will be resolved in the next stages of the project;</li> <li>- a compilation of the impacts of the project that have not been avoided;</li> <li>- a compilation of the proposed measures associated with each impact to avoid or minimise (through design refinements or ongoing management during construction and operation) or offset these impacts;</li> <li>- a compilation of the outcome(s) and criteria the proponent will achieve and how these will be monitored; and</li> <li>- the reasons justifying carrying out the project as proposed, having regard to the biophysical, economic and social considerations, including ecologically sustainable</li> </ul> </li> </ul>

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	<p style="text-align: center;">development and cumulative impacts.</p> <p>(r) relevant project plans, drawings, diagrams in an electronic format that enables integration with mapping and other technical software.</p> <p>2. The EIS must only include data and analysis that is reasonably needed to make a decision on the proposal. Relevant information must be succinctly summarised in the EIS and included in full in appendices. Irrelevant, conflicting or duplicated information must be avoided.</p>	
<p><b>3. Assessment of Key Issues*</b></p> <p>Key issue impacts are assessed objectively and thoroughly to provide confidence that the project will be constructed and operated within acceptable levels of impact.</p> <p>* Key issues are nominated by the Proponent in the CSSI project application and by the Department in the SEARs. Key issues need to be reviewed throughout the preparation of the EIS to ensure any new key issues that emerge are captured. The key issues identified in this document are not exhaustive but are key issues common to most CSSI projects.</p>	<p>1. The level of assessment of likely impacts must be proportionate to the significance of, or degree of impact on, the issue, within the context of the proposal location and the surrounding environment. The level of assessment must be commensurate to the degree of impact and sufficient to ensure that the Department and other government agencies are able to understand and assess impacts.</p> <p>2. For each key issue the Proponent must:</p> <ul style="list-style-type: none"> <li>(a) describe the biophysical and socio-economic environment, as far as it is relevant to that issue, including substantiated baseline data that is reflective of current guidelines where relevant;</li> <li>(b) describe the legislative and policy context, as far as it is relevant to the issue;</li> <li>(c) identify, describe and quantify (if possible) the impacts associated with the issue, including the likelihood and consequence (including worst case scenario) of the impact (comprehensive risk assessment), the impacts of concurrent activities within the proposal and cumulative impacts (parallel and sequential) with other projects;</li> <li>(d) demonstrate how potential impacts have been avoided (through design, or construction or operation methodologies);</li> <li>(e) detail how likely impacts that have not been avoided through design will be minimised, and the predicted effectiveness of these measures (against performance criteria where relevant);</li> <li>(f) detail how any residual impacts will be managed or offset, and the approach and effectiveness of these measures; and</li> <li>(g) measures to monitor the avoidance, minimisation and offsetting of impacts to ensure quantified outcomes and criteria are met.</li> </ul> <p>3. Where multiple reasonable and feasible options to avoid or minimise impacts are available, they must be identified, considered and the proposed measure justified taking into account the public interest.</p>	
4.	1. The project must be informed by consultation, including with relevant local, State and Commonwealth	

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<p><b>Consultation</b></p> <p>The project is developed with meaningful and effective engagement during project design and delivery.</p>	<p>government agencies, infrastructure and service providers, special interest groups, affected landowners, businesses and the community.</p> <p>2. The Proponent must document the consultation process and demonstrate how the project has responded to the inputs received.</p> <p>3. The Proponent must describe the timing and type of community consultation proposed during the design and delivery of the project, the mechanisms for community feedback, the mechanisms for keeping the community informed, and procedures for complaints handling and resolution.</p>	

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## 2. Key Issue SEARs

Key Issue and Desired Performance Outcome	Requirement (specific assessment requirements in addition to the general requirement above)	Current Guidelines
<p><b>5. Design, Place and Movement</b></p> <p>The provision of successful places - the project is integrated with and enhances the environment where it is located, including improved accessibility and connectivity for communities.</p> <p>The project contributes to greener places through the enhancement and provision of green infrastructure.</p>	<ol style="list-style-type: none"> <li>1. A <b>design led process</b> that is informed, collaborative and iterative, which:               <ol style="list-style-type: none"> <li>(a) utilises good design processes (such as Design Excellence and Design Review);</li> <li>(b) utilises design experts and multidisciplinary teams;</li> <li>(c) considers designing with Country;</li> <li>(d) involves the community, user groups and other stakeholders.</li> </ol> </li> <li>2. <b>Place design principles</b> that are reflective of the design objectives in Better Placed, including a focus on:               <ol style="list-style-type: none"> <li>(a) performance – sustainable, adaptable and durable;</li> <li>(b) people – safe, comfortable and liveable (such as crime prevention through environmental design);</li> <li>(c) working- functional, efficient and fit for purpose; and</li> <li>(d) value – creating and adding value.</li> </ol> </li> <li>3. <b>Place designs, actions and outcomes</b> for the project including in relation to:               <ol style="list-style-type: none"> <li>(a) stations as places;</li> <li>(b) active and public transport (at and to stations);</li> <li>(c) views and vistas;</li> <li>(d) interactions with airport operations (such as lighting).</li> </ol> <p>This should address maintenance of infrastructure, place and residual land; and processes to refine design (as per point 1).</p> </li> <li>4. <b>Green infrastructure design principles</b> that are reflective of the</li> </ol>	<p>Better Placed – An integrated design policy for built environment of New South Wales (Government Architect NSW, 2017)</p> <p>Better Placed – Aligning Movement and Place – Outline for understanding places in relation to movement infrastructure (Government Architect of NSW, 2019)</p> <p>Better Placed – Design Guide for Heritage - Implementing the Better Placed policy for heritage buildings, sites, and precincts (Government Architect of NSW, 2019)</p> <p>Sydney Green Grid – Spatial Framework and Project Opportunities (Tyrrell Studio and Office of the Government Architect 2017)</p> <p>Draft Greener Places – Establishing an urban Green Infrastructure policy for New South Wales (Government Architect NSW, 2017)</p> <p>Architect NSW – Draft for discussion, 2017) NSW State Design Review Panel Pilot Program (Government Architect, 2018)</p> <p>Local Character and Place Guideline (DPE, 2019)</p> <p>Designing with Country (GANSW, 2020)</p>

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	<p>principles in Draft Greener Places and The Sydney Green Grid</p> <p><b>5. Green infrastructure designs, actions and outcomes</b> for the project including in relation to:</p> <ul style="list-style-type: none"> <li>(a) green infrastructure, including how the designs do not preclude future provision of open space that supports recreation, biodiversity and waterway health;</li> <li>(b) how the project will achieve a net increase in tree numbers and canopy within proximity of the impacted area. (This relates to the number of trees to be cleared by the project (a tree is defined by Australian Standard 4970) that will not be covered by a biodiversity offset strategy);</li> <li>(c) how use of a range of local species in landscaping will improve and augment biodiversity outcomes.</li> </ul> <p>Visual representations of the project from key locations to illustrate the project must be provided.</p>	
<p><b>6. Transport and Traffic</b></p> <p>Network connectivity, safety and efficiency of the transport system in the vicinity of the project are managed to minimise impacts.</p> <p>The safety of transport system customers is maintained.</p> <p>Impacts on network capacity and the level of service are effectively managed.</p> <p>Works are compatible with existing infrastructure and future transport corridors.</p>	<p><b>1. Construction transport and traffic</b> (vehicle, pedestrian and cyclists), Including:</p> <ul style="list-style-type: none"> <li>(a) commitments made in Section 8.2.3 of the Scoping Report;</li> <li>(b) private property access; and</li> <li>(c) construction worker parking and the availability of public parking in residential and commercial/business districts.</li> </ul> <p><b>2. Operational transport</b>, including:</p> <ul style="list-style-type: none"> <li>(a) commitments made in Section 8.2.3 of the Scoping Report;</li> <li>(b) access routes to stations and interchanges and anticipated demand for kiss and ride facilities, active transport facilities and bus services;</li> <li>(c) severance of current and integration of potential future local movement corridors;</li> <li>(d) permanent modification to the existing road network, public</li> </ul>	<p>Guide to Traffic Management – Part 3 Traffic Studies and Analysis (Austroads, 2007)</p> <p>Guide to Traffic Generating Developments Version 2.2 (RTA, 2002)</p> <p>Cycling Aspects of Austroads Guides (Austroads, 2014)</p> <p><a href="#">NSW Bicycle Guidelines v 1.2 (RTA, 2005)</a></p> <p>Planning Guidelines for Walking and Cycling (DIPNR, 2004)</p>

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	<p>transport and active transport facilities; and</p> <p>(e) property and business access and on-street parking in existing commercial, industrial and residential areas.</p>	
<p><b>7. Noise and Vibration</b></p> <p>Construction noise and vibration (including airborne noise, ground-borne noise and blasting) is effectively managed to minimise adverse impacts on acoustic amenity.</p> <p>Increases in noise emissions and vibration affecting nearby properties and other sensitive receivers during operation of the project are effectively managed to protect the amenity and well-being of the community.</p> <p>Construction noise and vibration (including airborne noise, ground-borne noise and blasting) are effectively managed to minimise adverse impacts on the structural integrity of buildings and items including Aboriginal places and environmental heritage.</p>	<p><b>1. Construction noise and vibration</b>, including:</p> <p>(a) commitments made in Section 8.3.3 of the Scoping Report;</p> <p>(b) in accordance with relevant NSW noise and vibration guidelines;</p> <p>(c) the structural integrity and heritage significance of items (including Aboriginal places and items of environmental heritage)</p> <p><b>2. Demonstration that <b>blast impacts</b> can comply with the current guidelines, if blasting is required.</b></p> <p><b>3. Operation noise and vibration</b>, including:</p> <p>(a) commitments made in Section 8.3.3 of the Scoping Report;</p> <p>(b) in accordance with relevant NSW noise and vibration guidelines;</p>	<p><i>Technical Basis for Guidelines to Minimise Annoyance due to Blasting Overpressure and Ground Vibration</i> (ANZECC, 1990)</p> <p><i>German Standard DIN 4150-3: Structural Vibration – effects of vibration on structures</i></p> <p><i>Assessing Vibration: a technical guideline</i> (DEC, 2006)</p> <p><i>Interim Construction Noise Guideline</i> (DECCW, 2009)</p> <p><a href="#">Noise Policy for Industry (EPA, 2017)</a></p> <p><a href="#">Rail Infrastructure Noise Guideline (EPA, 2013)</a></p> <p><a href="#">NSW Road Noise Policy (DECCW, 2011)</a></p>
<p><b>8. Biodiversity</b></p> <p>The project design considers all feasible measures to avoid and minimise impacts on terrestrial and aquatic biodiversity.</p> <p>Offsets and/or supplementary measures are assured which are equivalent to any</p>	<p><b>1. Where <b>biodiversity</b> impacts are not addressed through relevant strategic conservation planning, the assessment must be undertaken in accordance with s7.9 of the <i>Biodiversity Conservation Act 2016</i> (BC Act), the Biodiversity Assessment Method (BAM), and be documented in a Biodiversity Development Assessment Report (BDAR). The BDAR must:</b></p> <p>(a) include information in the form detailed in s6.12 of the BC Act, cl6.8 of the <i>Biodiversity Conservation Regulation 2017</i> and the BAM;</p> <p>(b) be submitted with all digital spatial data associated with the</p>	<p>Biodiversity Assessment Method (OEH, 2017)</p> <p><a href="#">Policy and Guidelines for Fish Habitat Conservation and Management – Update</a> 2013 (DPI, 2013)</p> <p><a href="#">Threatened Species Survey and Assessment Guidelines</a></p> <p><a href="#">Why do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings</a> (NSW Fisheries,</p>

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residual impacts of project construction and operation.	<p>survey and assessment as per Appendix 10 of the BAM;</p> <p>(c) be prepared by a person accredited in accordance with the Accreditation Scheme for the Application of the Biodiversity Assessment Method Order 2017 under s6.10 of the BC Act; <i>and</i></p> <p>(d) include details of the measures proposed to address offset obligations.</p> <p>2. Impacts on biodiversity values not covered by relevant strategic conservation planning or the BAM must be assessed, such as threatened aquatic species assessment (Part 7A <i>Fisheries Management Act 1994</i>) to address whether there are likely to be any significant impact on listed threatened species, populations or ecological communities listed under the <i>Fisheries Management Act 1994</i> (FM Act).</p> <p>3. The EIS must identify whether the project, or any component of the project, would be classified as a <b>Key Threatening Process (KTP)</b> in accordance with the listings in the BC Act, FM Act and the <i>Environmental Protection and the Biodiversity Conservation Act 2000</i> (EPBC Act).</p>	<p><a href="#">2003</a>)</p> <p>Aquatic Ecology in Environmental Impact Assessment – EIA Guideline (Marcus Lincoln Smith 2003)</p> <p>Freshwater threatened species distribution maps (<a href="http://www.dpi.nsw.gov.au/fishing/species-protection/threatened-species-distributions-in-nsw/freshwater-threatened-species-distribution-maps">www.dpi.nsw.gov.au/fishing/species-protection/threatened-species-distributions-in-nsw/freshwater-threatened-species-distribution-maps</a>)</p>
<p><b>9. Heritage</b></p> <p>The design, construction and operation of the project facilitates, to the greatest extent possible, the long term protection, conservation and management of the heritage significance of items of environmental heritage and Aboriginal objects and places.</p> <p>The design, construction and operation of the project avoids or minimises impacts, to the greatest extent possible, on the heritage</p>	<p>1. Identify direct and/or indirect impacts (including cumulative impacts) to the heritage significance of:</p> <p><b>(a) Aboriginal places, objects and cultural heritage values</b>, as defined under the <i>National Parks and Wildlife Act 1974</i> and in accordance with the principles and assessment methods in the current guidelines;</p> <p><b>(b) environmental heritage</b>, as defined under the <i>Heritage Act 1977</i>; and</p> <p>(c) items listed on the State, National and World Heritage lists;</p> <p>(d) heritage items and conservation areas identified in environmental planning instruments applicable to the project area;</p> <p>(e) heritage items in Section 170 Heritage and Conservation Register;</p> <p>(f) potential heritage items and archaeological potential</p>	<p>Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (OEH, 2011)</p> <p>Aboriginal Cultural Heritage Consultation requirements for proponents (DECCW, 2010)</p> <p>Code of practice for archaeological investigation of Aboriginal objects in NSW (DECCW, 2010)</p> <p>NSW Skeletal Remains: Guidelines for Management of Human Remains (Heritage Office, 1998)</p> <p><a href="#">Aboriginal site recording form</a></p>

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significance of environmental heritage and Aboriginal objects and places.	<p>2. Where impacts to <b>State or locally significant heritage items or historical archaeology</b> are identified, the assessment must include:</p> <ul style="list-style-type: none"> <li>(a) relevant commitments made in Section 8.5.3 of the Scoping Report;</li> <li>(b) consistency of the project against conservation policies of any relevant conservation management plan;</li> <li>(c) identification of archaeological potential and significance;</li> <li>(d) be undertaken by a suitably qualified heritage consultant(s) and/or historical archaeologist (note: where archaeological excavations are proposed the relevant consultant must meet the NSW Heritage Council’s Excavation Director criteria); and</li> <li>(e) consideration of alternatives and options to avoid or minimise heritage impacts. The assessment must contain sufficient detail to enable an understanding of why the preferred alternative to and option(s) are recommended</li> </ul> <p>3. Where harm to <b>historical archaeology</b> is identified, the assessment must include an appropriate mitigation strategy. In the event that harm cannot be avoided in whole or part, an appropriate Research Design and Excavation Methodology must be prepared to guide excavation.</p> <p>4. Where impacts to <b>Aboriginal places, objects and cultural heritage values</b> are identified, the assessment must include the preparation of an Aboriginal Cultural Heritage Assessment Report (ACHAR) and relevant commitments in Section 8.6.3 of the Scoping Report.</p> <p>5. Where archaeological investigations of Aboriginal objects are proposed these must be conducted by a suitably qualified archaeologist, in accordance with section 1.6 of the <i>Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW</i> (DECCW 2010).</p>	<p><a href="#">Aboriginal site impact recording form</a></p> <p><a href="#">Aboriginal Heritage Information Management System site registration form</a></p> <p><a href="#">Care agreement application form</a></p> <p>Criteria for assessing Excavation Directors (NSW Heritage Council, 2019)</p> <p>NSW Heritage Manual (Heritage Office and Department of Urban Affairs and Planning, 1994)</p> <p>Assessing Heritage Significance (NSW Heritage Office, 2001)</p> <p>The Australia ICOMOS Burra Charter 2013</p> <p>Archaeological Assessment (Heritage Office &amp; Department of Urban Affairs and Planning, 1996)</p> <p>Assessing Significance for Historical Archaeological Site and ‘Relics’ (Heritage Branch, Department of Planning, 2009)</p> <p>Designing with Country (GANSW, 2020)</p> <p>Better Placed – Design Guide for Heritage – Implementing the Better Placed policy for heritage building, sites, and precincts (Government Architect of NSW, 2019)</p> <p>Heritage principles in the Draft Western Sydney Aerotropolis Plan – specifically LV8 &amp; LV9 (Western</p>

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	6. Where impacts to Aboriginal objects and/or places are proposed, consultation must be undertaken with Aboriginal people in accordance with the current guidelines.	Sydney Planning Partnership, 2019)
<p><b>10. Flooding</b></p> <p>The project minimises adverse impacts on flooding characteristics.</p> <p>Construction and operation of the project avoids or minimises the risk of, and adverse impacts from, infrastructure flooding, flooding hazards, or dam failure.</p>	<p>1. Assessment of <b>flood behaviour</b> during construction and operation for a range of modelled flood events up to the probable maximum flood (taking into account climate change) including:</p> <ul style="list-style-type: none"> <li>(a) any detrimental increases in the potential flood affectation of other properties, assets and infrastructure;</li> <li>(b) consistency (or inconsistency) with applicable Council floodplain risk management plans;</li> <li>(c) compatibility with the flood hazard of the land;</li> <li>(d) compatibility with the hydraulic functions of flow conveyance in flood ways and storage areas of the land;</li> <li>(e) downstream velocity and scour potential;</li> <li>(f) impacts the development may have upon existing community emergency management arrangements for flooding; and</li> <li>(g) any impacts the development may have on the social and economic costs to the community as consequence of flooding.</li> </ul>	<p>NSW Government's Floodplain Development Manual (Department of Natural Resources, 2005)</p> <p><a href="#">PS 07-003 New guideline and changes to section 117 direction and EP&amp;A Regulation on flood prone land</a></p> <p><a href="#">Practical Consideration of Climate Change - Flood risk management guideline (DECC, 2007)</a></p>
<p><b>11. Water - Hydrology</b></p> <p>Long term impacts on surface water and groundwater hydrology (including drawdown, flow rates and volumes) are minimised.</p> <p>The environmental values of nearby, connected and affected water sources, groundwater and dependent ecological systems including estuarine and marine water (if applicable) are maintained (where values are achieved) or improved and</p>	<p>1. Assessment of surface and groundwater resources (including reliance by users and for ecological purposes) likely to be impacted by the project, including rivers, streams, estuaries and wetlands as per the Biodiversity Assessment Method (BAM), groundwater and groundwater dependent ecosystems and an assessment of stream order.</p> <p>2. Assessment of <b>surface and groundwater hydrology</b> in accordance with the current guidelines, including:</p> <ul style="list-style-type: none"> <li>(a) natural processes within rivers, wetlands, estuaries, and floodplains that affect the health of the fluvial, riparian, estuarine system and landscape health (such as modified discharge</li> </ul>	<p>Framework for Biodiversity Assessment – Appendix 2 (OEH, 2014)</p> <p>Managing Urban Stormwater: Soils and Construction Volume 1 (Landcom 2004) and Volume 2 (A. Installation of Services; B. Waste Landfills; C. Unsealed Roads; D. Main Roads; E. Mines and Quarries) (DECC, 2008)</p> <p>NSW Aquifer Interference Policy (DPI, 2012)</p> <p>Risk assessment Guidelines for Groundwater Dependent Ecosystems (Office of Water, 2012)</p>

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<p>maintained (where values are not achieved).</p> <p>Sustainable use of water resources.</p>	<p>volumes, durations and velocities), aquatic and riparian connectivity and access to habitat for spawning and refuge;</p> <p>(b) impacts from any permanent and temporary interruption of groundwater flow, including the extent of drawdown, barriers to flows, implications for groundwater dependent surface flows, ecosystems and species, groundwater users and the potential for settlement, impacts on connectivity between groundwater sources (aquifers);</p> <p>(c) changes to environmental water availability and flows, both regulated/licensed and unregulated/rules-based sources;</p> <p>(d) direct or indirect increases in erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses;</p> <p>(e) minimising the effects of proposed stormwater and wastewater management during construction and operation on natural hydrological attributes (such as volumes, flow rates, management methods and re-use options) and on the conveyance capacity of existing stormwater systems where discharges are proposed through such systems; and</p> <p>(f) water take (direct or passive) from all sources with estimates of annual volumes during construction</p> <p>3. Mapping along the tunnel alignment to show interaction of the proposal with the hydrological resource</p>	<p>Controlled Activities on Waterfront Land (DPI, 2018)</p> <p>Guidelines for Development Adjacent to the Upper Canal and Warragamba Pipelines (WaterNSW, 2020)</p>
<p><b>12. Water - Quality</b></p> <p>The project is designed, constructed and operated to protect the NSW Water Quality Objectives where they are currently being achieved, and contribute towards achievement of the Water Quality Objectives over time where they are</p>	<p>1. Assessment of <b>Water Quality</b> impacts, including:</p> <p>(a) identifying the ambient NSW Water Quality Objectives (NSW WQO) and environmental values for the receiving waters relevant to the project, including the indicators and associated trigger values or criteria for the identified environmental values;</p> <p>(b) identify and estimate the quality and quantity of pollutants that may be introduced into the water cycle by source and discharge point and describe the nature and degree of impact that any</p>	<p>NSW Water Quality and River Flow Objectives at <a href="http://www.environment.nsw.gov.au/ieo/">http://www.environment.nsw.gov.au/ieo/</a></p> <p>Using the ANZECC Guidelines and Water Quality Objectives in NSW (DEC, 2006)</p> <p>Australian and New Zealand Guidelines for Fresh Water Quality (2018)</p>

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currently not being achieved, including downstream of the project to the extent of the project impact including estuarine and marine waters (if applicable).	<p>discharge(s) may have on the receiving environment, including consideration of all pollutants that pose a risk of non-trivial harm to human health and the environment;</p> <p>(c) identify the rainfall event that the water quality protection measures will be designed to cope with;</p> <p>(d) assess the significance of any identified impacts including consideration of the relevant ambient water quality outcomes;</p> <p>(e) demonstrate how construction and operation of the project will, to the extent that the project can influence, ensure that:</p> <ul style="list-style-type: none"> <li>- where the NSW WQOs for receiving waters are currently met, they will continue to be protected; and</li> <li>- where the NSW WQOs are not currently being met, activities will work toward their achievement over time;</li> </ul> <p>(f) justify, if required, why the WQOs cannot be maintained or achieved over time;</p> <p>(g) demonstrate that all practical measures to avoid or minimise water pollution and protect human health and the environment from harm are investigated and implemented;</p> <p>(h) identify sensitive receiving environments (which may include estuarine and marine waters downstream) and develop a strategy to avoid or minimise impacts on these environments; and</p> <p>(i) identify proposed monitoring locations, monitoring frequency and indicators of surface and groundwater quality.</p>	<p>Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (DECC, 2008)</p> <p>Managing Urban Stormwater: Soils and Construction Volume 1 (Landcom 2004) and Volume 2 (A. Installation of Services; B. Waste Landfills; C. Unsealed Roads; D. Main Roads; E. Mines and Quarries) (DECC, 2008)</p>
<p><b>13. Soils and Contamination</b></p> <p>The environmental values of land, including soils, subsoils and landforms, are protected.</p> <p>Risks arising from the disturbance and excavation of land and disposal of soil are minimised, including disturbance to acid</p>	<ol style="list-style-type: none"> <li>1. Verify the risk of <b>acid sulfate soils</b> (Class 1, 2, 3 or 4 on the Acid Sulfate Soil Risk Map) within, and in the area likely to be impacted by, the project.</li> <li>2. <b>Land contamination</b> and identify if remediation of the land is required, having regard to the ecological and human health risks posed by the contamination in the context of past, existing and future land uses. Where assessment and/or remediation is required, the EIS must document how the assessment and/or remediation would be</li> </ol>	<p>Acid Sulfate Soils Assessment Guidelines (DoP, 2008)</p> <p>Acid Sulfate Soils Manual (Acid Sulfate Soils Management Advisory Committee, 1998)</p> <p>Managing Land Contamination: Planning Guidelines SEPP 55 –Remediation of Land, (DUAP &amp; EPA, 1998)</p> <p>Guidelines for Consultants Reporting on Contaminated</p>

Key Issue and Desired Performance Outcome	Requirement (specific assessment requirements in addition to the general requirement above)	Current Guidelines
sulfate soils and site contamination.	<p>undertaken in accordance with current guidelines.</p> <p>3. Determine the presence, extent and severity of <b>soil salinity</b> within the project area and assess the impacts of the project on soil salinity and how it may affect groundwater resources and hydrology and native vegetation.</p>	<p>Sites (OEH, reprinted 2011)</p> <p>Guidelines for the NSW Site Auditor Scheme (EPA, 2017)</p> <p>Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997 (EPA, 2015)</p> <p>Urban and regional salinity – guidance given in the Local Government Salinity Initiative booklets (<a href="http://www.environment.nsw.gov.au/salinity/solutions/urban.htm">http://www.environment.nsw.gov.au/salinity/solutions/urban.htm</a>) which includes <i>Site Investigations for Urban Salinity</i> (DLWC, 2002)</p> <p>Landslide risk management guidelines presented in Australian Geomechanics Society (2007)</p> <p>Soil and Landscape Issues in Environmental Impact Assessment (DLWC 2000)</p> <p>Managing Urban Stormwater: Soils and Construction Volume 1 (Landcom 2004) and Volume 2 (A. Installation of Services; B. Waste Landfills; C. Unsealed Roads; D. Main Roads; E. Mines and Quarries) (DECC, 2008)</p> <p>Other guidelines made or approved under section 105 of the <i>Contaminated Land Management Act 1997</i></p>
<p><b>14. Sustainability and Climate Change Risk</b></p> <p>The project reduces the NSW Government's operating costs and ensures the effective</p>	<p>1. The <b>sustainability of the project</b> in accordance with the Infrastructure Sustainability Council of Australia (ISCA) <i>Infrastructure Sustainability Rating Tool</i> and recommend an appropriate target rating for the project.</p> <p>2. The risk and vulnerability of the project to <b>climate change</b> in</p>	<p>Infrastructure Sustainability Rating Tool Scorecard relating to energy and carbon for large infrastructure projects, ISCA</p> <p>Australian Government's Climate Change Impacts and</p>

Key Issue and Desired Performance Outcome	Requirement (specific assessment requirements in addition to the general requirement above)	Current Guidelines
<p>and efficient use of resources.</p> <p>Conservation of natural resources is maximised.</p> <p>The project is designed, constructed and operated to be resilient to the future impacts of climate change.</p>	<p>accordance with the current guidelines.</p>	<p>Risk Management – A Guide for Business and Government (2006)</p> <p>AS/NZS 3100:2009 Risk Management – Principles and Guidelines</p>
<p><b>15. Other Issues</b></p>	<p>Social, economic, air quality, waste and resources, hazards and risk, greenhouse gas assessments should be undertaken in accordance with the commitments in section 8 and section 9 of the Scoping Report.</p>	<p>National Airports Safeguarding Framework (NASF) (DITRDC, 2019)</p>