

# Planning Secretary's Environmental Assessment Requirements

<b>Application Number</b>	SSI 74258485
<b>Project</b>	Greater Parramatta, Olympic Peninsula Water Cycle
<b>Location</b>	Land generally within City of Parramatta, City of Ryde and Canada Bay Council
<b>Proponent</b>	Sydney Water Corporation
<b>Date of Issue</b>	24 September 2024
<b>Date of Expiration</b>	24 September 2026

General SEARs

Desired Performance Outcome	Requirement	Current Guidelines
<p><b>1. Environmental Impact Assessment Process</b></p> <p>The process for assessment of the project is transparent, balanced, well-focussed and legal.</p>	<ol style="list-style-type: none"> <li>1. The Environmental Impact Statement (the EIS) must be prepared in accordance with Part 8 of the <i>Environmental Planning and Assessment Regulation 2021</i> (the EP&amp;A Regulation).</li> <li>2. The EIS must be prepared having regard to the Department’s State Significant Infrastructure Guidelines and State Significant Project Technical Guidelines (together, the Guidelines), as relevant.</li> <li>3. It is the Proponent’s responsibility to determine whether the project needs to be referred to the Australian Government Department of Climate Change, Energy, the Environment and Water (AG DCCEEW) for an approval under the Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i> (the EPBC Act). If AG DCCEEW determines the project is a Controlled Action and 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 process.</li> <li>4. Where the project is a Controlled Action and requires approval under the EPBC Act and is being assessed under the Bilateral Agreement (pursuant to Amending Agreement No.1) the EIS must include:                         <ol style="list-style-type: none"> <li>(a) consideration of any Protected Matters that may be impacted by the project</li> <li>(b) identification and assessment of those Protected Matters that are likely to be significantly impacted</li> <li>(c) details of how significant impacts to Protected Matters have been avoided, mitigated and, if necessary, offset</li> <li>(d) consideration of, and reference to, any relevant conservation advice, recovery plans and threat abatement plans.</li> </ol> </li> <li>5. The onus is on the Proponent to ensure legislative requirements relevant to the project are met.</li> </ol>	<p><a href="#">State Significant Infrastructure Guidelines (DPHI, 2024)</a></p> <p><a href="#">Undertaking Engagement Guidelines for State Significant Projects (DPHI, 2024)</a></p> <p><a href="#">Social Impact Assessment Guideline (DPE, 2023)</a></p> <p><a href="#">Cumulative Impact Assessment Guidelines for State Significant Projects (DPE, 2022)</a></p> <p><a href="#">EPBC Act - Environment Assessment Process (DSEWPC)</a></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</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) a <b>summary</b> of the project as a whole that has regards to the economic, environmental and social impacts of the project and the principles of ecologically sustainable development</li> <li>(b) an <b>introduction</b></li> <li>(c) the <b>strategic and project context</b> including but not limited to –</li> </ol> </li> </ol>	<p><a href="#">State Significant Infrastructure Guidelines: SSI Guidelines – Preparing an Environmental Impact Statement (Appendix B) (DPE, 2022)</a></p>

<p>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>	<ul style="list-style-type: none"> <li>- relevant Government strategies, policies or plans which provide strategic support for the project</li> <li>- regional and local land use planning context</li> <li>- key features of the project corridor and surrounds that could affect or be affected by the project including land uses, land ownership, important features of the natural, cultural and built environment</li> <li>- analysis of feasible alternatives to the project and options within the project<sup>1</sup>, including –             <ul style="list-style-type: none"> <li>o do nothing option</li> <li>o details of the short-listed route options and the criteria used in the selection of the preferred route, including justification for discharge locations into the Parramatta River</li> </ul> </li> <li>- how the project will align with the Camelia-Rosehill Place Strategy, particularly with regard to:             <ul style="list-style-type: none"> <li>o the delivery of road and active transport link over Duck River/Creek to Carnarvon Street and</li> <li>o the location of the proposed pipelines under the Rosehill Racecourse</li> </ul> </li> <li>- how the project will interact with the Sydney Metro West and Parramatta Light rail projects.</li> </ul> <p>(d) a project description, including but not limited to –</p> <ul style="list-style-type: none"> <li>- project area</li> <li>- physical layout and design, including an overview of the project in a table that captures the main elements of the project, all construction and operational mitigation measures built into the physical layout and design, and figures illustrating the construction and operational elements of the project, including overflow discharge points</li> <li>- uses and activities, including a description of any related development or infrastructure that is required for the project or may be developed as a result of the project, but would be subject to a separate approval process</li> <li>- a description of utility services that need to be provided or relocated and are included within the project scope</li> <li>- timing and sequencing</li> <li>- construction methodology, including that for waterway crossings</li> <li>- timing and sequencing</li> </ul> <p>(e) the <b>statutory context</b> of the project including:</p> <ul style="list-style-type: none"> <li>- any necessary licences and approvals</li> <li>- applicable policies and guidelines</li> <li>- any existing licences, orders, approvals and consents applying to the site and how they interact with the project</li> </ul>	<p><a href="#">Camellia-Rosehill Place Strategy</a></p> <p><a href="#">Sydney Olympic Park Plan of Management for the Parklands</a></p> <p><a href="#">Sydney Olympic Park Master Plan 2030</a></p>
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<sup>1</sup> Alternatives to a project are different projects which would achieve the same project objective(s) including the consequences of not carrying out the project. For example, alternatives to a road project may be a rail project in the same area and alternate routes for the road. Options within the project are variations of the same project. For example, options within a road project could be design of an intersection, the location or design of a bridge, or locations for a vent stack.

	<ul style="list-style-type: none"> <li>(f) the <b>community and agency engagement</b> undertaken and to be undertaken for the project, including but not limited to:             <ul style="list-style-type: none"> <li>– EPA for noise and vibration, water quality, contamination, air quality, and waste</li> <li>– NSW DCCEEW for biodiversity, flooding, water and soils, and lands managed by National Parks and Wildlife Services</li> <li>– Heritage NSW for heritage (both Aboriginal and environmental)</li> <li>– Sydney Metro and Transport for NSW with regards to interactions with other SSI's.</li> <li>– Department of Planning, Housing and Infrastructure (State-led Rezoning team) and Australian Turf Club regarding the future redevelopment of Camellia-Rosehill precinct</li> <li>– Sydney Olympic Park Authority for matters relating to Sydney Olympic Park lands</li> <li>– The relevant council's including matters relating to making Paramatta River Swimmable</li> <li>– Impacted community groups.</li> </ul> </li> <li>(g) the <b>assessment and mitigation of impacts</b>, which provides a detailed summary of the results of the assessment of the potential impacts of the project (see section 3)</li> <li>(h) the <b>justification and evaluation</b> of the project.</li> </ul>	
<p><b>3. Assessment and Mitigation of Key Issues and Impacts</b></p> <p>Key issues and impacts are assessed objectively and thoroughly to provide confidence that the project will be constructed and operated within acceptable levels of impact or with appropriate management and offsets.</p> <p>Key impact issues are nominated by the Proponent in the SSI 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 linear Transport and Water SSI projects.</p>	<ol style="list-style-type: none"> <li>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 project 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.</li> <li>2. For each key issue, the EIS must include a detailed summary of the results of the assessment of the potential impacts of the project undertaken in detailed studies, including:             <ol style="list-style-type: none"> <li>(a) the condition of the existing environment</li> <li>(b) a summary of the key findings of the detailed technical studies in the appendices of the EIS, using suitable cross-referencing to specific sections and subsections to reduce repetition between the main body of the EIS and technical studies</li> <li>(c) description of the scale and nature of the predicted impacts, including any cumulative impacts, and whether these impacts will comply with the relevant statutory requirements, standards, performance measures, and goals and criteria set out in relevant guidelines and policies</li> <li>(d) demonstrated ability to avoid, mitigate or offset the impacts of the project having regards to -                 <ul style="list-style-type: none"> <li>– mitigation measures incorporated into the design of the project (e.g., changes to the project area, project layout and design, key uses and activities carried out on site, timing)</li> <li>– other mitigation measures that will be implemented</li> <li>– any negotiated agreements or offsets proposed to address residual impacts of the project following mitigation</li> </ul> </li> <li>(e) detailed reasons justifying any predicted exceedances of relevant standards, performance measures, and goals and criteria set out in relevant guidelines and policies</li> <li>(f) identification of key uncertainties associated with the assessment and what action will be</li> </ol> </li> </ol>	<p><a href="#">State Significant Infrastructure Guidelines (DPHI, 2024)</a></p> <p><a href="#">Undertaking Engagement Guidelines for State Significant Projects (DPHI, 2024)</a></p> <p><a href="#">Social Impact Assessment Guideline (DPE, 2023)</a></p> <p><a href="#">Cumulative Impact Assessment Guidelines for State Significant Projects (DPE, 2022)</a></p>

	<p>taken to address these uncertainties</p> <p>(g) highlight any key linkages between the assessment of different matters or likely cumulative impacts of the project.</p>	
<b>4. Key Appendices</b>	<p>1. The EIS must include the following appendices:</p> <p>(a) a SEARs table, identifying the sections and subsections where the SEARs have been addressed in the EIS and in the technical studies in the appendices</p> <p>(b) a statutory compliance table, identifying the sections and subsections where the relevant statutory requirements have been addressed in the EIS</p> <p>(c) a community engagement table, identifying where the issues raised by the community during engagement have been addressed in the sections and subsections of the EIS</p> <p>(d) a table of the proposed mitigation measures for the project (excluding any mitigation measures that are built into the physical layout and design of the project and captured in the project description)</p> <p>(e) any supporting information, including any detailed technical studies prepared by specialists.</p>	
<b>5. Estimated Development Cost</b>	<p>1. Provide the estimated development cost (EDC) of the development prepared in accordance with the relevant planning circular using the Standard Form of EDC Report.</p>	<p><a href="#">PS 24-002 – Changes to how development costs are calculated for planning purposes</a></p>

Key Issue SEARs

Key Issue and Desired Performance Outcome	Requirement (Specific assessment requirements in addition to the general requirement above)	Current Guidelines <sup>2</sup>
<p><b>1. Air Quality</b></p> <p>The project is designed, constructed and operated in a manner that minimises air quality impacts (including nuisance, dust and odour) to minimise risks to human health and the environment to the greatest extent practicable.</p>	<ol style="list-style-type: none"> <li>Undertake an <b>air quality impact assessment (AQIA)</b> for construction and operation of the project in accordance with the current guidelines.</li> <li>The <b>AQIA</b> must include the following:                     <ol style="list-style-type: none"> <li>demonstrated ability to comply with the relevant regulatory framework, specifically <i>Protection of the Environment Operations Act 1997</i> and <i>Protection of the Environment Operations (Clean Air) Regulation (2022)</i>.</li> <li>identification and assessment of construction air pollution sources and measures for preventing and/or minimising their generation, including nuisance dust, emissions from plant and equipment and potential odours from contaminated and acid sulfate soils</li> <li>a description of operational odour control techniques proposed for the project and their effectiveness in reducing odour emissions</li> <li>assessment of operational odour impacts, including on any future redevelopment of the Camellia-Rosehill precinct</li> <li>cumulative local and regional air quality impact assessment.</li> </ol> </li> </ol>	<p><a href="#">Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA)</a></p> <p><a href="#">Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (EPA)</a></p> <p><a href="#">Technical Framework: Assessment and Management of Odour from Stationary Sources in NSW (DEC, 2006)</a></p> <p><a href="#">National Environment Protection (Ambient Air Quality) Measure Annual Reporting (NEPC)</a></p> <p><a href="#">Technical Framework: Assessment and management of odour from stationary sources in NSW</a></p> <p><a href="#">Technical Notes: Assessment and management of odour from stationary sources in NSW</a></p>
<p><b>2. Biodiversity</b></p> <p>The project design considers measures to avoid and minimise impacts on terrestrial and aquatic biodiversity.</p> <p>Offsets and / or supplementary measures are assured which are equivalent to</p>	<ol style="list-style-type: none"> <li>Prepare a <b>Biodiversity Development Assessment Report (BDAR)</b> that assess biodiversity impacts in accordance with section 7.9 of the <i>Biodiversity Conservation Act 2016</i> (BC Act) and the Biodiversity Assessment Method 2020 (BAM).</li> <li>The BDAR must document the application of the avoid, minimise and offset framework including assessing all direct, indirect and prescribed impacts in accordance with the BAM.</li> <li>The BDAR must include information in the form detailed in s6.12 of the BC Act, section 6.8 of the <i>Biodiversity Conservation Regulation</i></li> </ol>	<p><a href="#">Biodiversity Assessment Method (DPIE)</a></p> <p><a href="#">Guidelines for Developments adjacent to National Parks and other Reserves (DPIE)</a></p> <p><a href="#">Policy and Guidelines for Fish Habitat Conservation and Management (DPI)</a></p> <p><a href="#">Guidance on Groundwater Dependent Ecosystems (DPE Water)</a></p>

<sup>2</sup> Guidelines listed are the current list of guidelines that may be applicable to a SSI project. It is the Proponents responsibility to identify, and justify, which guidelines have been applied to a specific project.

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<p>residual impacts of project construction and operation.</p>	<p>2017 (BC Regulation) and the BAM including details of the measures proposed to address the offset obligation as follows:</p> <ul style="list-style-type: none"> <li>(a) the total number and classes of biodiversity credits required to be retired for the project</li> <li>(b) the number of classes of like-for-like biodiversity credits proposed to be retired</li> <li>(c) the number and classes of biodiversity credits proposed to be retired in accordance with the variation rules</li> <li>(d) any proposal to fund a biodiversity conservation action</li> <li>(e) any proposal to make a payment to the Biodiversity Conservation Fund</li> <li>(f) any staged retirement of credits based on when a development / activity that would impact on biodiversity values is carried out.</li> </ul> <p><i>Note: If seeking approval to use the variation rules, the BDAR must contain details of the reasonable steps that have been taken to obtain requisite like-for-like biodiversity credits.</i></p> <ul style="list-style-type: none"> <li>4. The BDAR must be submitted with all digital spatial data associated with the survey and assessment.</li> <li>5. The BDAR must be prepared by a person accredited in accordance with the Accreditation Scheme for the Application of Biodiversity Assessment Method Order 2017 under section 6.10 of the BC Act.</li> <li>6. The BDAR must include details of the measures proposed to address offset obligations.</li> <li>7. Impacts on biodiversity values not covered by the BAM must be assessed. This includes a <b>threatened aquatic species assessment</b> (under Part 7A of <i>Fisheries Management Act 1994</i> (FM Act)) to address whether there are likely to be any significant impact on listed threatened species, populations or ecological communities listed under the FM Act.</li> <li>8. 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 EPBC Act.</li> </ul>	<p><a href="#">NSW Wetlands Policy (DECCW)</a></p> <p><a href="#">Freshwater threatened species distribution maps</a></p> <p><a href="#">Fish Passage Requirements for Waterway Crossings and Policy (2003)</a></p> <p><a href="#">Guidelines for Fish Friendly Waterway Crossings (2003)</a></p>

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	<ol style="list-style-type: none"> <li>9. Assess the potential impacts to Key Fish Habitat and / or threatened species from the release of treated wastewater into the Parramatta River.</li> <li>10. Assess the potential impacts to Key Fish Habitat and / or threatened species from the release of brine to a wastewater system with an ocean outfall or demonstrate how the project will be consistent with the existing environment protection licence (EPL 378).</li> <li>11. Demonstrate how the design and construction of the project avoids, minimises and mitigates impacts to Key Fish Habitat.</li> <li>12. Detail the measures for avoiding and/or minimising impacts on native riparian vegetation, including identification of buffer zones for waterway crossings.</li> </ol>	
<p><b>3. Climate Change Risk</b></p> <p>The project is designed, constructed and operated to be resilient to the future impacts of climate change.</p>	<ol style="list-style-type: none"> <li>1. The <b>risk and vulnerability of the project to climate change</b> in accordance with the current guidelines. This must include discussion of any proposed adaptation to climate change during the project’s life cycle.</li> <li>2. Climate change risks must be quantified with reference to the NSW Government’s climate projections at 10km resolution (or lesser resolution if 10km projections are not available) or equivalent projection tool (such as the Climate Futures Tool from CSIRO and Bureau of Meteorology (attenuated for project region)) and specific adaptation actions incorporated in the design.</li> </ol>	<p><a href="#">Climate Risk Ready NSW Guide</a></p> <p><a href="#">Net Zero Plan Stage 1: 2020-2030</a></p>
<p><b>4. Contamination</b></p> <p>Human and environmental health is protected by understanding the presence and risks associated with contaminated land, including impacts to soils, groundwater, surface water and sediments</p> <p>Contamination risks are independently considered consistent with the auditing</p>	<ol style="list-style-type: none"> <li>1. Identify the likelihood of contamination (which includes soils, groundwater, ground gas, surface water and sediments, where applicable) by considering the context of past, existing and future land uses. The EIS must document how the assessment of contaminated land has considered relevant guidelines for contaminated land made or approved under section 105 of the <i>Contaminated Land Management Act 1997</i>.</li> <li>2. Where contamination is considered likely based on past or current land uses or other factors (such as offsite contamination migrating</li> </ol>	<p><a href="#">Managing Land Contamination: Planning Guidelines SEPP 55 – Remediation of Land (DUAP and EPA, 1998)</a></p> <p><a href="#">Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997 (EPA, 2015)</a></p>

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<p>regime established under the <i>Contaminated Land Management Act, 1979</i></p>	<p>onto the site), undertake detailed site investigation/s to determine the nature and extent of the contamination.</p> <ol style="list-style-type: none"> <li>3. Where contamination exists, assess if remediation of the land is required, having regard to the ecological and human health risks posed by the contamination.</li> <li>4. Any Preliminary Site Investigation, Detailed Site Investigation, or other related reports on contamination (including but not limited to a Sampling Analysis Quality Plan), must be accompanied with an Interim Audit Advice or a Site Audit Statement from a NSW EPA accredited Site Auditor certifying the appropriateness of the assessments. Any risk rating of areas of environmental interest (or areas of environmental concern or any other similar terminology) as well as the proposed mitigation measures must be also reviewed as appropriate by the accredited Site Auditor.</li> <li>5. Consider potential impacts to the integrity of the Sydney Olympic Park Authority’s waste containment systems, in particular at the Woo-la-ra landfill and its leachate gravity drain and vertical cut-off wall south of the waste mound.</li> <li>6. Contamination reports must be prepared or reviewed by a Contaminated Land Consultant certified under either the Environment Institute of Australia or New Zealand’s “Certified Environmental Practitioner” (Site Contamination) scheme (CEnvP(SC)) or the Soil Science Australia “Certified Professional Soil Scientist Contaminated Site Assessment and Management” (CPSS CSAM) scheme.</li> <li>7. A Detailed Site Investigation must be prepared if recommended by a Preliminary Site Investigation unless justification is provided in the EIS on why it is not possible to undertake a such an investigation.</li> </ol>	<p><a href="#">Sampling design part 1 – application: Contaminated Land Guidelines (EPA, 2022)</a></p> <p><a href="#">Sampling design part 2 – interpretation: Contaminated Land Guidelines (EPA, 2022)</a></p> <p><a href="#">Consultants reporting on contaminated land: Contaminated Land guidelines (EPA, 2020)</a></p> <p><a href="#">Guidelines for the NSW Site Auditor scheme 3rd edition (EPA, 2017)</a></p> <p><a href="#">Any other relevant guidelines made or approved by the EPA under s105 of the Contaminated Land Management Act</a></p> <p><a href="#">Guidelines on the Duty to Report Contamination (EPA)</a></p> <p><a href="#">Contaminated Land Consultant Certification Policy (EPA, 2022)</a></p>
<p><b>5. Economic</b></p> <p>The project minimises impacts to property and business and achieves appropriate</p>	<ol style="list-style-type: none"> <li>1. <b>Economic impacts</b> on potentially affected properties, businesses, recreational users and land and water users (for example, recreational and commercial fishers, oyster farmers), including</li> </ol>	

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<p>integration with adjoining land uses, including maintenance of appropriate access to properties and community facilities, and minimisation of displacement of existing land use activities, dwellings and infrastructure.</p>	<p>property acquisitions/adjustments, access, amenity and relevant statutory rights.</p>	
<p><b>6. Flooding</b></p> <p>The project minimises adverse impacts on existing 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. Changes to <b>flood behaviour</b> during construction and operation for a full range of flood events up to the probable maximum flood (taking into account sea level rise and storm intensity due to climate change) must be assessed (and modelled) including:</p> <ul style="list-style-type: none"> <li>(a) time to onset, duration, depth, velocity and hydraulic hazard of any flooding</li> <li>(b) any detrimental increases in the potential flood affectation of other properties, assets and infrastructure</li> <li>(c) consistency (or inconsistency) with applicable Council floodplain risk management plans</li> <li>(d) compatibility with the flood hazard of the land</li> <li>(e) compatibility with the hydraulic functions of flow conveyance in flood ways and storage areas of the land</li> <li>(f) downstream velocity and scour potential</li> <li>(g) impacts the development may have upon existing community emergency management arrangements for flooding. These matters must be discussed with the State Emergency Services and Council</li> <li>(h) any impacts the development may have on the social and economic costs to the community as consequence of flooding.</li> <li>(i) an independent peer-review, with the findings detailed in the EIS, including how any recommendations and findings have been addressed.</li> <li>(j) Impact on existing development consents that apply to the site.</li> </ul> <p><i>Note: Flood modelling is to be undertaken by a suitably qualified engineer consistent with Council's requirements and Australian Rainfall and Runoff. Flood behaviour includes flood volume, extent, depth, level, velocity, duration, rate of rise, flood function and hazard. Impacts of flooding include</i></p>	<p><a href="#">Flood Risk Management Guideline – Practical Consideration of Climate Change (DECC)</a></p> <p><a href="#">Flood Risk Management Manual: The management of flood liable land (DPE, 2023)</a></p> <p><a href="#">Flood risk management toolkit</a></p> <p><a href="#">NSW Government's Floodplain Risk Management Manual and supporting guides (DPE, 2023)</a></p> <p><a href="#">PS 24-01 – update on addressing flood risk in planning decisions</a></p> <p><a href="#">Support for emergency management planning Flood risk management guideline EM01 (DPE, 2023)</a></p> <p><a href="#">2024 Parramatta River Flood Study</a></p> <p><a href="#">Australian Rainfall and Runoff – A Guide to Flood Estimation (Commonwealth of Australia (GeoScience, 2019)</a></p>

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	<p><i>changes to flood behaviour and risks to the community including emergency management response for the community</i></p> <ol style="list-style-type: none"> <li>2. <b>Flood management objectives and outcomes</b> must be clearly identified and substantiated to address the characteristics of the environment and relevant legislative, management and guidance requirements.</li> <li>3. A <b>flood impact and risk assessment (FIRA)</b>, prepared in accordance with relevant guidelines, and having regard to advice provided by Biodiversity, Conservation and Science Group (<b>Attachment A</b>).</li> </ol>	
<p><b>7. Hazards and Risk</b></p> <p>The project considers hazards associated with the storage of dangerous goods.</p>	<ol style="list-style-type: none"> <li>1. Undertake a preliminary risk screening in accordance with Chapter 3 of SEPP (Resilience and Hazards) 2021 and Applying SEPP 33 (DoP, 2011). If the screening indicates that the development is 'potentially hazardous', a Quantitative Risk Assessment (QRA) must be prepared in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 6, 'Hazard Analysis'. The QRA must include and not be limited to the following:                     <ol style="list-style-type: none"> <li>(a) Identification of the quantity of dangerous goods to be stored, handled and transported to site and the associated locations,</li> <li>(b) Justification for the appropriate choice of dangerous goods/chemicals selected for the process to reduce the potential risk exposure to surrounding receivers</li> <li>(c) an explanation of the processes/technologies proposed for the facility and any critical safeguards</li> <li>(d) demonstration of compliance with relevant quantitative and qualitative risk criteria as set out in Hazardous Industry Planning Advisory Paper No 4 – Risk Criteria for Land Use Safety Planning</li> <li>(e) demonstration that the cumulative individual and societal risk from hazard sources (i.e. proposed facility, Dangerous Goods pipelines, and major hazards facility within Rosehill/Camellia precinct) would comply with all relevant land use safety risk criteria as set out in Hazardous Industry Planning Advisory Paper No. 4, with consideration of the population limits set out</li> </ol> </li> </ol>	<p><a href="#">Australian Dangerous Goods Code</a></p> <p><a href="#">State Environmental Planning Policy (Resilience and Hazards) 2021</a></p> <p><a href="#">Hazardous Industry Planning Advisory Paper No. 6 – Guidelines of Hazard Analysis</a></p> <p><a href="#">Hazardous Industry Planning Advisory Paper No. 4 – Risk Criteria for Land Use Safety Planning</a></p> <p><a href="#">Storing and Handling of Liquids: Environment Protection - Participants Manual (DECC, 2007)</a></p> <p><a href="#">Hazardous and Offensive Development Application Guidelines: Applying SEPP 33 (DoP, 2011)</a></p>

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	<p>for Rosehill Camellia Precinct</p> <ul style="list-style-type: none"> <li>(f) demonstration that appropriate spill containment will be provided for storage, filling and loading of all fuels and other chemicals to be used on site</li> <li>(g) demonstrated compliance with Part 9.3E of the POEO Act for the use of industrial chemicals, including details of activities involving Schedule 6 or Schedule 7 chemicals listed on the Industrial Chemicals Environmental Management Standard (IChEMS) register.</li> </ul>	
<p><b>8. Health and Safety</b></p> <p>The project avoids or minimises any adverse health impacts arising from the project.</p> <p>The project avoids, to the greatest extent possible, risk to public safety.</p>	<ol style="list-style-type: none"> <li>1. The <b>health impacts</b> of the project, in accordance with the current guidelines.</li> <li>2. The assessment must: <ul style="list-style-type: none"> <li>(a) describe the current known health status of the affected population</li> <li>(b) assess health risks associated with exposure to environmental hazards</li> <li>(c) assess the effect of the project on other relevant determinants of health such as the level of physical activity and access to social infrastructure</li> <li>(d) assess opportunities for health improvement</li> <li>(e) assess the distribution of the health risks and benefits</li> <li>(f) discuss how, in the broader social and economic context of the project, the project will minimise negative health impacts while maximising the health benefits</li> <li>(g) assess the impact of project discharge(s) to Parramatta River on making the Parramatta River swimmable by 2025, and the potential health impacts to recreational uses of Parramatta River.</li> </ul> </li> <li>3. The likely risks of the project to public safety, paying particular attention to pedestrian safety, subsidence risks, bushfire risks and the handling and use of dangerous goods.</li> </ol>	<p><a href="#">Environmental Health Risk Assessment</a></p> <p><a href="#">Ten Steps to a Living River: The Parramatta River Master Plan 2018.</a></p>

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<p><b>9. Heritage – Aboriginal</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 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 significance of Aboriginal objects and places and cultural heritage values.</p>	<ol style="list-style-type: none"> <li>1. Assess and manage all impacts to the <b>heritage significance</b> of:                             <ol style="list-style-type: none"> <li>(a) Aboriginal places, objects and cultural heritage values, as defined under the <i>National Parks and Wildlife Act 1974</i> (NPW Act) and in accordance with the principles and methods of assessment identified in the current guidelines; and</li> <li>(b) Aboriginal places of heritage significance, as defined in the Standard Instrument – Principal Local Environmental Plan.</li> </ol> </li> <li>2. Where impacts to Aboriginal places, and/or objects are identified, the assessment must:                             <ol style="list-style-type: none"> <li>(a) be documented in an Aboriginal Cultural Heritage Assessment Report (ACHAR). This may include the need for survey and test excavation</li> <li>(b) assess impacts on Aboriginal Cultural Heritage values (tangible and intangible)</li> <li>(c) outline measures to avoid and minimise those impacts during construction and operation in accordance with the current guidelines</li> <li>(d) outline procedures to be followed if Aboriginal objects, Aboriginal burials or skeletal material are found during construction or operation, which formulate appropriate measures to manage unforeseen impacts</li> <li>(e) outline the long-term management framework for the ongoing protection, management and conservation of Aboriginal objects and other heritage values.</li> </ol> </li> <li>3. Where archaeological investigations of Aboriginal objects are proposed these must be conducted by a suitably qualified and experienced archaeologist, in accordance with section 1.6 of the <i>Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW</i> (DECCW 2010).</li> <li>4. Where impacts to Aboriginal objects and/or places is likely, consultation must be undertaken with Aboriginal people and stakeholders in accordance with the <i>National Parks and Wildlife</i></li> </ol>	<p><a href="#">Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (OEH)</a></p> <p><a href="#">Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW)</a></p> <p><a href="#">Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (DECCW)</a></p> <p><a href="#">Skeletal Remains: Guidelines for Management of Human Remains (Heritage Office)</a></p> <p><a href="#">SIA Practice Note - Engaging with Aboriginal Communities (DPE)</a></p> <p><a href="#">Connecting with Country (GANSW)</a></p>

Key Issue and Desired Performance Outcome	Requirement (Specific assessment requirements in addition to the general requirement above)	Current Guidelines <sup>2</sup>
	<p><i>Regulation 2019</i> and current guidelines, including Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010.</p>	
<p><b>10. Heritage – Environmental</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 environmental heritage.</p> <p>The design, construction and operation of the project avoids or minimises impacts, to the greatest extent possible, on the heritage significance of environmental heritage.</p>	<ol style="list-style-type: none"> <li>1. Assess and manage direct and / or indirect impacts to the <b>heritage significance</b> of:                             <ol style="list-style-type: none"> <li>(a) environmental heritage, as defined under the <i>Heritage Act 1977</i></li> <li>(b) items/places/properties listed on the Local, State, Commonwealth, National World Heritage and State Agency Section 170 Heritage and Conservation Registers or lists</li> <li>(c) heritage items and conservation areas identified in environmental planning instruments applicable to the project area.</li> </ol> </li> <li>2. Where impacts to State or locally significant heritage items are identified, the assessment must:                             <ol style="list-style-type: none"> <li>(a) include a significance assessment, a statement of heritage impact (SOHI) for all heritage items and a historical archaeological assessment</li> <li>(b) assess the consistency of the project against conservation policies of any relevant conservation management plan</li> <li>(c) consider impacts to the item of significance caused by, but not limited to, vibration, demolition, archaeological disturbance, altered historical arrangements and access, visual amenity, landscape and vistas, curtilage, subsidence and architectural noise treatment, drainage infrastructure, contamination remediation and site compounds (as relevant)</li> <li>(d) outline measures to avoid and minimise those impacts during construction and operation in accordance with the current guidelines</li> <li>(e) justify changes to the heritage fabric of items or landscape elements, including analysis of alternative options</li> <li>(f) identify opportunities for the project to reflect on the heritage character and significance of the site and surrounding area during construction and operation through heritage interpretation</li> </ol> </li> </ol>	<p><a href="#">Australia ICOMOS Charter for the Conservation of Places of Significance, Burra Charter</a></p> <p><a href="#">Assessing Heritage Significance (DPE)</a></p> <p><a href="#">Guidelines for preparing a Statement of Heritage Impact (DPE)</a></p> <p><a href="#">Skeletal Remains: Guidelines for Management of Human Remains (Heritage Office)</a></p> <p><a href="#">Assessing Significance for Historical Archaeological Sites and ‘Relics’ (Heritage Branch, Department of Planning)</a></p> <p><a href="#">Altering Heritage Assets (Heritage Council)</a></p> <p><a href="#">Investigating Heritage Significance (Heritage Council)</a></p> <p><a href="#">Design Guide for Heritage (GANSW)</a></p> <p><a href="#">Design in Context Guidelines for Infill Development in the Historic Environment (NSW Heritage Office)</a></p>

Key Issue and Desired Performance Outcome	Requirement (Specific assessment requirements in addition to the general requirement above)	Current Guidelines <sup>2</sup>
	<p>(g) outline the future management framework for the ongoing protection, management and conservation of Heritage objects and other heritage values.</p> <p>The assessment must be undertaken by a suitably qualified heritage consultant(s) and / or historical archaeologist.</p> <p>Where archaeological excavations are proposed the relevant consultant must meet the NSW Heritage Council's Excavation Director criteria).</p>	
<p><b>11. Noise and Vibration</b></p> <p>Construction noise and vibration (including airborne noise, ground-borne noise and blasting) are effectively managed to minimise adverse impacts on acoustic amenity, and adverse impacts on the structural integrity of buildings and items including Aboriginal places and environmental heritage.</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>Increases in noise emissions and vibration affecting environmental heritage as defined in the Heritage Act during operation of the project are effectively managed.</p>	<p>1. The assessment of <b>construction noise and vibration</b> must:</p> <p>(a) identify and justify all noise monitoring locations used to determine the construction Noise Management Levels and construction Rating Background Levels</p> <p>(b) identify the relevant construction scenarios (both surface and below ground) for assessment considering, but not limited to, time of day, duration, annoying characteristics, and noise (both air and ground borne) and vibration levels</p> <p>(c) identify noise (both air and ground borne) and vibration impacts resulting from work proposed to be undertaken outside of standard construction hours. The location, duration, type of activity and justification (consistent with ICNG requirements) must be provided</p> <p>(d) identify predicted noise (both air and ground borne) and vibration levels, and provide noise and vibration contour maps for potentially affected receivers</p> <p>(e) assess and justify the potential noise (both air and ground borne) and vibration impacts</p> <p>(f) identify and assess the potential vibration impacts on Aboriginal places and environmental heritage (including heritage items)</p> <p>(g) assess noise generated by construction traffic on public roads and entering and exiting fixed facilities and construction works</p>	<p><a href="#">Approved Methods for Measurement and Analysis of Environmental Noise (EPA)</a></p> <p><a href="#">Interim Construction Noise Guideline (DECC)</a></p> <p><a href="#">Noise Policy for Industry (EPA)</a></p> <p><a href="#">NSW Road Noise Policy (DECCW)</a></p> <p><a href="#">Development Near Rail Corridors and Busy Roads – Interim Guideline (Department of Planning)</a></p> <p><a href="#">Assessing Vibration: a Technical Guideline (DEC)</a></p> <p><a href="#">Technical Basis for Guidelines to Minimise Annoyance due to Blasting Overpressure and Ground Vibration (ANZEC)</a></p>

Key Issue and Desired Performance Outcome	Requirement (Specific assessment requirements in addition to the general requirement above)	Current Guidelines <sup>2</sup>
	<p>zones, including noise generated by idling heavy vehicles and consideration of road geometry</p> <ul style="list-style-type: none"> <li>(h) identify and justify potential mitigation to be applied, including but not limited to learning(s) from previous projects, case studies and identification of good practice to manage noise and vibration impacts relevant to the proposed construction activities</li> <li>(i) identify and assess the predicted effectiveness of mitigation measures including the effect on noise (both air and ground borne) and vibrations levels, time of day and duration</li> <li>(j) identify potential residual noise and vibration impacts following application of mitigation measures</li> <li>(k) demonstrate how community consultation has informed the development of noise and vibration mitigation measures including how out-of-hours works has been socialised with the affected community</li> <li>(l) consider cumulative noise and vibration impacts from the project, including concurrent and consecutive construction activities within the project boundary and the construction of other projects in the vicinity of the project</li> <li>(m) consider construction fatigue and how this will be managed on during construction of the project, taking into account cumulative impacts particularly with other SSI projects such Sydney Metro West and Parramatta Light Rail Stage 2.</li> </ul> <p>2. The assessment of <b>Operational noise and vibration</b> must:</p> <ul style="list-style-type: none"> <li>(a) define and justify all operational assessment scenarios and activities, including additional noise from new and upgraded pumping stations</li> <li>(b) demonstrate and validate the performance of the noise or vibration model used</li> <li>(c) include the selection criteria / methodology and justification for monitoring locations with specific reference to locations</li> </ul>	

Key Issue and Desired Performance Outcome	Requirement (Specific assessment requirements in addition to the general requirement above)	Current Guidelines <sup>2</sup>
	<p>indicative of potential impacts</p> <ul style="list-style-type: none"> <li>(d) identify all sensitive receivers that exceed the relevant operational triggers / criteria which may qualify for mitigation</li> <li>(e) present predicted noise levels, and noise contour maps for all potentially affected receivers</li> <li>(f) identify, assess and justify conceptual mitigation measures to be implemented</li> <li>(g) identify all affected receivers with residual impacts after the implementation of the conceptual mitigation measures.</li> </ul> <p>3. The process for community engagement should be included or referenced in the noise and vibration assessment as part of the mitigation strategy and assessment.</p>	
<p><b>12. Place and Design</b></p>	<ul style="list-style-type: none"> <li>1. A <b>design led process</b> that is informed, collaborative and iterative, which: <ul 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) is designed with and connected with Country</li> <li>(d) involves the Department of Planning, Housing and Infrastructure (State-led Rezoning team) and other stakeholders</li> </ul> </li> <li>2. Identify <b>place principles</b> that are reflective of the design objectives in Better Placed, including a focus on: <ul style="list-style-type: none"> <li>(a) fit – contextually, culturally, local and of its place (including future development state of the surrounding environment)</li> <li>(b) performance – sustainable, adaptable and durable</li> <li>(c) working- functional, efficient and fit for purpose</li> <li>(d) value – creating and adding value to the community</li> <li>(e) look and feel – engaging, inviting and attractive.</li> </ul> </li> </ul>	<p><a href="#">A vision for Parramatta River (CoP, 2023)</a></p> <p><a href="#">Parramatta River Catchment Group Master Plan 2018</a></p> <p><a href="#">SIA Practice Note - Engaging with Aboriginal Communities (DPE)</a></p> <p><a href="#">Connecting with Country (GANSW)</a></p> <p><a href="#">NSW State Design Review Panel (Government Architect NSW) (GANSW)</a></p> <p><a href="#">Better Placed (GANSW)</a></p> <p><a href="#">Connecting with Country (GANSW)</a></p> <p><a href="#">Greener Places (GANSW)</a></p> <p><a href="#">Guidelines for Landscape and Visual Impact Assessment (Third edition)</a></p> <p><a href="#">Design Guide for Heritage (GANSW)</a></p>

Key Issue and Desired Performance Outcome	Requirement (Specific assessment requirements in addition to the general requirement above)	Current Guidelines <sup>2</sup>
	<p>3. Include and illustrate <b>place designs, outcomes and actions</b> for the project that protect and facilitate improvements to the built environment and place, including in relation to:</p> <ul style="list-style-type: none"> <li>(a) built form (including key project elements and amenity impacts on the surrounding environment)</li> <li>(b) Aboriginal Cultural Heritage and Environmental heritage (including maritime) having regard to the results of any consultation and archaeological investigations</li> <li>(c) views and vistas:                             <ul style="list-style-type: none"> <li>i. an assessment of visual impact and visual representations of the project from key locations to illustrate the project where visual impacts are deemed greater than medium</li> <li>ii. consideration of views from the proposed future redevelopment of the Camellia-Rosehill precinct</li> <li>iii. methods for screening the facility from publicly accessible areas and future redevelopment within the Camellia-Rosehill precinct</li> </ul> </li> <li>(d) provision of adequate bicycle parking and high quality end-of-trip facilities.</li> </ul> <p>4. Identify <b>green infrastructure design principles</b> that are reflective of the principles in Greener Places and The Sydney Green Grid.</p> <p>5. Include and illustrate <b>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 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</li> <li>(c) mitigating urban heat island effects and provide appropriate comfort levels on-site</li> <li>(d) how the design of the facility and its interface will integrate into the landscape.</li> </ul>	<p><a href="#">Design in Context Guidelines for Infill Development in the Historic Environment (NSW Heritage Office)</a></p>

Key Issue and Desired Performance Outcome	Requirement (Specific assessment requirements in addition to the general requirement above)	Current Guidelines <sup>2</sup>
<p><b>13. Protected and Sensitive Lands</b></p> <p>The project is designed, constructed and operated to avoid or minimise impacts on protected and sensitive lands.</p> <p>The project is designed, constructed and operated to avoid or minimise future exposure to coastal hazards and processes.</p>	<p>1. Impacts of the project on <b>environmentally sensitive land and processes</b> (and the impact of processes on the project) including, but not limited to:</p> <ul style="list-style-type: none"> <li>(a) land defined as a “coastal environment area” under the State Environmental Planning Policy (Resilience and Hazards) 2021<sup>3</sup></li> <li>(b) coastal hazards identified in studies completed by local councils or state agencies (including risk mitigation strategies that reduce coastal hazards exposure and funding of such strategies)</li> <li>(c) coastal processes (including tides, sediment movement etc.) associated with adopted risk mitigation actions</li> <li>(d) protected areas (including land and water) managed BCS NSW DCCEEW and / or DPI Fisheries under the NPW Act and the <i>Marine Estate Management Act 2014</i></li> <li>(e) Key Fish Habitat as mapped and defined in accordance with the (FM Act)</li> <li>(f) waterfront land as defined in the <i>Water Management Act 2000</i></li> <li>(g) land or waters identified as Critical Habitat under the FM Act or EPBC Act or areas of outstanding biodiversity value under the BC Act</li> <li>(h) biodiversity stewardship sites, private conservation lands and other lands identified as offsets.</li> </ul>	<p><a href="#">Guidelines for Controlled Activities on Waterfront Land (DPE Water)</a></p> <p><a href="#">Sydney Olympic Park Plan of Management for the Parklands</a></p> <p><a href="#">Developments adjacent to National Parks and Wildlife Service lands: guidelines for consent and planning authorities (DPIE-NPWS 2020)</a></p>
<p><b>14. Social</b></p> <p>The project is designed to provide socially sustainable outcomes.</p> <p>The project will maximise the social and economic welfare of the community.</p> <p>The project will deliver better development outcomes by minimising negative social</p>	<p>1. Potential <b>social impacts</b> of the project, during both construction and operation, from the points of view of the affected community and other relevant stakeholders (i.e., how they expect to experience the project), including disruptions to recreational land uses at outfall locations, and how any social impacts would be mitigated or offset.</p> <p>2. How project activities, and <b>environmental changes and impacts</b> arising from the construction and operation of the project may affect:</p> <ul style="list-style-type: none"> <li>(a) way of life</li> <li>(b) community</li> <li>(c) accessibility, including impacts on the Duck River Nature Trail</li> </ul>	<p><a href="#">State Significant Infrastructure Guidelines (DPHI, 2024)</a></p> <p><a href="#">Undertaking Engagement Guidelines for State Significant Projects (DPHI, 2024)</a></p> <p><a href="#">Social Impact Assessment Guideline (DPE, 2023)</a></p> <p><a href="#">Cumulative Impact Assessment Guidelines for State Significant Projects (DPE, 2022)</a></p>

<sup>3</sup> Reference to State Environmental Planning Policies is not a requirement for compliance with the policies; they are used here to define sensitive land only.

Key Issue and Desired Performance Outcome	Requirement (Specific assessment requirements in addition to the general requirement above)	Current Guidelines <sup>2</sup>
<p>impacts and enhancing positive social impacts on affected communities.</p>	<p>(d) culture (e) health and well being (f) surroundings (g) livelihoods (h) decision making systems.</p> <p>3. Impact of the project on the use of Parramatta River for recreational purposes including swimming.</p>	<p><a href="#">SIA Practice Note - Engaging with Aboriginal Communities (DPE)</a></p> <p><a href="#">Sydney Olympic Park Plan of Management for the Parklands</a></p> <p><a href="#">Parramatta River Catchment Group Master Plan 2018</a></p>
<p><b>15. Soils</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 sulfate soils.</p>	<p>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.</p> <p>2. The impact of the project on <b>acid sulfate soils</b> (including impacts of acidic runoff offsite) in accordance with the current guidelines.</p> <p>3. Identify whether <b>soil salinity</b> is likely to be an issue and if so, determine the presence, extent and severity of soil salinity within the project area, and assess the impacts of the project on soil salinity and how it may affect groundwater resources and hydrology.</p> <p>4. The impacts on <b>soil and land resources</b> (including erosion risk or hazard). Particular attention must be given to soil erosion and sediment transport consistent with the practices and principles in the current guidelines.</p>	<p><a href="#">Acid Sulfate Soil Manual</a></p> <p><a href="#">Guidelines on the Duty to Report Contamination (EPA)</a></p> <p><a href="#">National Environment Protection (Assessment of Site Contamination) Measure</a></p> <p><a href="#">Managing Urban Stormwater: Soils and Construction (Landcom)</a></p> <p><a href="#">Best Practice Erosion and Sediment Control (IECA 2008)</a></p> <p><a href="#">Site Investigation for Urban Salinity (DLWC, 2002)</a></p>
<p><b>16. Sustainability</b></p> <p>The project ensures the effective and efficient use of resources.</p> <p>Conservation of natural resources is maximised.</p>	<p>1. The <b>sustainability of the project</b> in accordance with an accredited rating tool and recommend an appropriate target rating for the project.</p> <p>2. Consider and assess the project against current guidelines including targets and strategies to improve Government efficiency in use of water, energy and transport.</p> <p>3. Evaluate the potential for the beneficial reuse of treated water during project operation.</p>	<p><a href="#">Decarbonising Infrastructure Delivery Policy (INSW, 2024)</a></p>
<p><b>17. Transport and Traffic</b></p>	<p>1. <b>Construction transport and traffic (vehicle, pedestrian and cyclists) impacts</b>, including, but not necessarily limited to:</p>	<p>Movement and Place Framework relevant guidance including the <a href="#">‘Walking Space Guide: Towards</a></p>

Key Issue and Desired Performance Outcome	Requirement (Specific assessment requirements in addition to the general requirement above)	Current Guidelines <sup>2</sup>
<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>	<ul style="list-style-type: none"> <li>(a) a considered approach to route identification and scheduling of construction vehicle movements</li> <li>(b) the indicative number, frequency and size of construction related vehicles (passenger, commercial and heavy vehicles, including spoil management movements) accessing each construction ancillary facility and travelling along construction traffic routes during both standard hours and out-of-hours</li> <li>(c) construction worker parking</li> <li>(d) the nature of existing traffic (types and number of movements) on construction access routes (including consideration of peak traffic times and sensitive road users and parking arrangements)</li> <li>(e) access constraints and impacts on public transport (infrastructure and services), pedestrians and cyclists</li> <li>(f) the need to close, divert or otherwise reconfigure elements of the road, pedestrian and cycle network, duration of these changes, with a specific emphasis on impacts on the Duck River Nature Trails project and measures for retaining pedestrian and cyclists access</li> <li>(g) impacts to on-street parking, including to residents and businesses</li> <li>(h) a cumulative impact assessment taking into consideration the delivery of Parramatta Light Rail Stage 2 and Sydney Metro projects, including but not limited to road works, road closures, haulage routes, and construction worker parking.</li> </ul> <p>2. <b>Operational traffic and transport arrangements and impacts</b> of the project, including:</p> <ul style="list-style-type: none"> <li>(a) forecast traffic volumes for the project and the surrounding road</li> <li>(b) impacts on property and business access and on-street parking</li> <li>(c) impacts on the Duck River Nature Trails and any measures to maintain public access</li> <li>(d) details on the maximum size of vehicles that will be servicing the facility and demonstration that adequate access is provided</li> <li>(e) impacts on the delivery and operation of Parramatta Light Rail Stage 2 and Sydney Metro projects.</li> </ul>	<p><u>Pedestrian Comfort and Safety</u> and the 'Cycleway Design Toolbox: Designing for Cycling and Micromobility'.</p>

Key Issue and Desired Performance Outcome	Requirement (Specific assessment requirements in addition to the general requirement above)	Current Guidelines <sup>2</sup>
<p><b>18. Waste</b></p> <p>Wates generated during the construction and operation of the project are effectively stored, handled, treated, reused, recycled and/or disposed of lawfully and in a manner that protects environmental values</p>	<ol style="list-style-type: none"> <li>1. Predicted <b>waste generated</b> from the project during construction and operation, including:                             <ol style="list-style-type: none"> <li>(a) classification of the waste in accordance with the current guidelines</li> <li>(b) estimates / details of the quantity of each classification of waste to be generated during the construction of the project, including bulk earthworks and spoil balance</li> <li>(c) methods for handling of waste including measures to facilitate segregation and prevent cross contamination</li> <li>(d) management of waste including estimated location and volume of stockpiles</li> <li>(e) measures for waste minimisation and reuse</li> <li>(f) lawful disposal or recycling locations for each type of waste</li> <li>(g) contingencies for the above, including managing unexpected waste volumes.</li> </ol> </li> <li>2. Potential environmental impacts from the excavation, handling, storage on site and transport of waste particularly with relation to sediment/leachate control, noise and dust.</li> </ol>	<p><a href="#">Waste Classification Guidelines (EPA)</a></p>
<p><b>19. 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 maintained (where values are not</p>	<ol style="list-style-type: none"> <li>1. Describe the <b>existing hydrological regime</b> for surface and groundwater resources (including reliance by users and for ecological purposes) likely to be impacted by the project, including stream orders, as per the Framework for Biodiversity Assessment. This must include a description of groundwater levels across the site under a range of wet and dry conditions.</li> <li>2. Map the following features:                             <ol style="list-style-type: none"> <li>(a) rivers, streams, estuaries, and wetlands (as described in section 3.1.3 of the BAM)</li> <li>(b) groundwater</li> <li>(c) groundwater dependent ecosystems</li> <li>(d) proposed discharge locations.</li> </ol> </li> </ol>	<p><a href="#">NSW Aquifer Interference Policy (DPI)</a></p> <p><a href="#">NSW Water Strategy (DPE Water)</a></p> <p><a href="#">Groundwater Assessment Toolbox for Major Projects in NSW – Overview Document (DPE, 2022)</a></p> <p><a href="#">Guidelines for Groundwater Documentation for SSD/SSI Projects. Technical guideline (DPE, 2022)</a></p> <p><a href="#">Minimum Groundwater Modelling Requirements for SSD/SSI Projects (DPE, 2022)</a></p> <p><a href="#">Cumulative Groundwater Impact Assessment Approaches (DPE, 2022)</a></p>

Key Issue and Desired Performance Outcome	Requirement (Specific assessment requirements in addition to the general requirement above)	Current Guidelines <sup>2</sup>
<p>achieved).</p> <p>Sustainable use of water resources.</p>	<ol style="list-style-type: none"> <li>3. A description of works / activities that may intercept, interfere, extract, use divert or receive surface water and groundwater on a temporary or permanent basis during construction and operation.</li> <li>4. Identify any relevant Water Sharing Plans that may potentially be impacted by the project.</li> <li>5. Provide a <b>detailed water balance</b> for ground and surface water resources.</li> <li>6. <b>Surface and groundwater hydrology impacts (both quality and source)</b> of the construction and operation of the project and any ancillary facilities (both built elements and discharges) in accordance with the current guidelines, including:                         <ol style="list-style-type: none"> <li>(a) natural processes within rivers, wetlands, estuaries, marine waters and floodplains that affect the health of the fluvial, riparian, estuarine or marine system and landscape health (such as modified discharge volumes, durations and velocities), aquatic connectivity and access to habitat for spawning and refuge</li> <li>(b) effects to upstream and downstream rivers, wetlands, estuaries, marine waters, floodplain areas and water-dependant fauna and flora (including groundwater dependant ecosystems)</li> <li>(c) impacts from permanent and temporary interruption or interference 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 geotechnical settlement associated with surface water bodies</li> <li>(d) changes to environmental water availability and flows, both regulated/licensed and unregulated/rules-based sources</li> <li>(e) direct or indirect increases in erosion, siltation, destruction of riparian vegetation or a reduction in the stability of riverbanks or watercourses</li> <li>(f) methods for minimising the effects of proposed stormwater and wastewater management during construction and operation on natural hydrological attributes (such as volumes, flow rates,</li> </ol> </li> </ol>	<p><a href="#">Guidelines for the Assessment and Management of Groundwater Contamination (DEC)</a></p> <p><a href="#">Parramatta River Catchment Group Master Plan 2018</a></p> <p><a href="#">Framework for Biodiversity Assessment (OEH, 2018)</a></p>

Key Issue and Desired Performance Outcome	Requirement (Specific assessment requirements in addition to the general requirement above)	Current Guidelines <sup>2</sup>
	<p>management methods and re-use options) and on the conveyance capacity of existing stormwater systems where discharges are proposed through such systems</p> <p>(g) water take (direct or indirect) from all surface and groundwater sources with estimates of annual volumes during construction and operation.</p> <p>(h) details of the proposed surface and groundwater monitoring to identify construction and operational hydrological impacts, including changes to groundwater levels.</p>	
<p><b>20. 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 currently not being achieved, including downstream of the project to the extent of the project impact including estuarine and marine waters (if applicable).</p>	<p>1. <b>Water Quality (surface and groundwater)</b> impacts on waterways potentially impacted by the project, including but not limited to the Parramatta River, Homebush Bay and Haslams Creek, including:</p> <p>(a) existing background levels</p> <p>(b) details on 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>(c) identification and estimation of 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 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>(d) results of water quality modelling and analysis including descriptions under the full range of operating scenarios, including average or typical through to worst case for any proposed discharge point, including but not limited to the full range of weather conditions, bypasses, and 'off-spec' effluent scenarios.</p> <p>(e) outline impacts from the proposal on existing sewage infrastructure including any potential impacts on dry weather and wet weather overflows from the existing reticulation network and any impacts on North Head Water Resource Recovery Facility concentrations and loads discharged and hydraulic and treatment capacity</p>	<p><a href="#">NSW Water Quality and River Flow Objectives</a></p> <p><a href="#">Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC / ARMCANZ)</a></p> <p><a href="#">Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZG)</a></p> <p><a href="#">Using the ANZECC Guidelines and Water Quality Objectives in NSW (DEC, 2006)</a></p> <p><a href="#">Guidelines for Controlled Activities on Waterfront Land (DPE Water)</a></p> <p><a href="#">Neutral or Beneficial Effect on Water Quality Assessment Guideline (WaterNSW)</a></p> <p><a href="#">Managing Urban Stormwater: Soils and Construction (Landcom)</a></p> <p><a href="#">Australian Guidelines for Water Recycling (NHMRC, 2008)</a></p> <p><a href="#">Risk-based Framework for Considering Waterway Health Outcomes in Strategic Land-use Planning Decisions (OEH, 2015)</a></p>

Key Issue and Desired Performance Outcome	Requirement (Specific assessment requirements in addition to the general requirement above)	Current Guidelines <sup>2</sup>
	<ul style="list-style-type: none"> <li>(f) details on the rainfall event that the water quality protection measures will be designed to cope with</li> <li>(g) the significance of any identified impacts including consideration of the relevant ambient water quality outcomes</li> <li>(h) details on how construction and operation of the project will, to the extent that the project can influence, ensure that:                             <ul style="list-style-type: none"> <li>i. where the NSW WQOs for receiving waters are currently being met they will continue to be protected</li> <li>ii. where the NSW WQOs are not currently being met activities will work toward their achievement over time</li> <li>iii. the objectives of making the Paramatta River swimmable can be met</li> <li>iv. migration of contamination is considered and how it will be managed and minimised.</li> </ul> </li> <li>(i) justification for, if required, why the WQOs cannot be maintained or achieved over time</li> <li>(j) demonstration that all practical measures to avoid or minimise water pollution and protect human health and the environment from harm are investigated and implemented. This also includes consideration and management of frac out from the temporary loss of drilling fluids and inappropriate storage of chemicals and fuels</li> <li>(k) Identification of sensitive receiving environments (which may include estuarine and marine waters downstream) and develop a strategy to avoid or minimise impacts on these environments</li> <li>(l) proposed water quality monitoring programs, including monitoring locations, monitoring frequency and the parameters that will be monitored pre-construction, during construction and during operation, including justification for these.</li> </ul>	<p><a href="#">Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (EPA, 2022)</a></p> <p><a href="#">Parramatta River Catchment Group Master Plan 2018</a></p>