r

# Secretary's Environmental Assessment Requirements

| | |
|---|---|
| **Application Number** | SSI-22765520 |
| **Project** | Sydney Metro West |
| **Proposal** | Sydney Metro West – Rail infrastructure, stations, precincts and operations |
| **Location** | Westmead to Sydney CBD |
| **Proponent** | Sydney Metro |
| **Date of Issue** | August 2021 |

## 1. General Standard SEARs

| Desired Performance Outcome | Requirement | Current Guidelines[1] (as relevant) |
|---|---|---|
| **1. Environmental Impact Assessment Process**<br><br>The process for assessment of the proposal is transparent, balanced, well focussed and legal. | 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 EP&A Regulation).<br><br>2. It is the Proponent's responsibility to determine whether the proposal needs to be referred to the Commonwealth Department of Agriculture, Water and the Environment (DAWE) for an approval under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (the 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.<br><br>3. Where the proposal requires approval under the EPBC Act and is being assessed under the Bilateral Agreement the EIS should address:<br>(a) consideration of any Protected Matters that may be impacted by the development where the Commonwealth Minister has determined that the proposal is a Controlled Action;<br>(b) identification and assessment of those Protected Matters that are likely to be significantly impacted;<br>(c) details of how significant impacts to Protected Matters have been avoided, mitigated and, if necessary, offset;<br>(d) consideration of, and reference to, any relevant conservation advices, recovery plans and threat abatement plans.<br><br>4. The onus is on the Proponent to ensure legislative requirements relevant to the proposal are met. | EPBC Act Environment Assessment Process (SEWPAC, 2010) |
| **2. Environmental Impact Statement**<br><br>The proposal is described in sufficient | 1. The EIS must include, but not necessarily be limited to, the following:<br>(a) an executive summary;<br>(b) a description of the Sydney Metro West scheme and the staged approach to obtaining approval for the | |

[1] Guidelines listed are the current list of guidelines that may be applicable to a CSSI project. It is the Proponents responsibility to identify, and justify, which guidelines have been applied to a specific project.

| Desired Performance Outcome | Requirement | Current Guidelines[1] (as relevant) |
|---|---|---|
| detail to enable clear understanding that the proposal has been developed through an iterative process of impact identification and assessment and proposal refinement to avoid, minimise or offset impacts so that the proposal, on balance, has the least adverse environmental, social and economic impact, including its cumulative impacts. | Sydney Metro West scheme;<br>(c) a description of the proposal, including key components and activities (including ancillary components and activities), required to construct the proposal and operate the Sydney Metro West scheme including:<br>– scope of works to construct the proposal, including key activities, description of methodologies, working hours, indicative plant and equipment to be used;<br>– timing of key construction activities;<br>(d) a concise description of the general biophysical and socio-economic environment that is likely to be impacted by the proposal (including offsite impacts). Elements of the environment that are not likely to be affected by the proposal do not need to be described;<br>(e) a demonstration of how the proposal design has been developed to avoid or minimise likely adverse impacts;<br>(f) the identification and assessment of key issues as provided in the '1.3 Assessment of Key Issues' performance outcome;<br>(g) a statement of and the quantification (where appropriate) of outcomes and performance criteria the proposal will achieve for each key issue;<br>(h) 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;<br>(i) consideration of the interactions between measures proposed to avoid or minimise impact(s), between impacts themselves and between measures and impacts[2];<br>(j) an assessment of the relevant cumulative impacts of the proposal taking into account other construction stages of the Sydney Metro West scheme, other State Significant projects that have been approved but where construction has not commenced, State Significant projects that have commenced construction (such as Parramatta Light Rail Stage 1), and State Significant projects that have recently been determined (such as WestConnex, Western Harbour Tunnel,), and approved construction in the relevant precincts);<br>(k) statutory context of the proposal, including:<br>– how the proposal meets the provisions of the EP&A Act and EP&A Regulation; | |

[2] Measures proposed to avoid or minimise one impact may cause an unintended impact on another issue. Therefore these impacts and their interactions need to be analysed and resolved where possible.

| Desired Performance Outcome | Requirement | Current Guidelines[1] (as relevant) |
|---|---|---|
| | – a list of any approvals that must be obtained under any other Act or law before the proposal may lawfully be carried out;<br>– identification of the environmental planning instruments and government strategic plans and policies relevant to the proposal and land subject to the proposal (including State environmental planning policies, land use and infrastructure strategies and local strategic planning statements);<br>(l) a chapter that synthesises the environmental impact assessment and provides:<br>– a succinct but full description of the proposal for which approval is sought;<br>– 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 phase of the proposal;<br>– a compilation of the impacts of the proposal that have not been avoided;<br>– 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;<br>– a compilation of the outcome(s) and criteria the proposal will achieve and how these will be monitored;<br>– the reasons justifying carrying out the proposal as proposed, having regard to the biophysical, economic and social considerations, including ecologically sustainable development and cumulative impacts;<br>(m) relevant project plans, drawings, diagrams in an electronic format that enables integration with mapping and other technical software.<br><br>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.<br><br>3. The EIS must include a single consolidated crosscheck table in an appendix which identifies where SEARs are addressed in the EIS and technical papers. | |

| Desired Performance Outcome | Requirement | Current Guidelines[1] (as relevant) |
|---|---|---|
| **3. Assessment of Key Issues***<br><br>Key issue impacts are assessed objectively and thoroughly to provide confidence that the proposal will be constructed and operated within acceptable levels of impact.<br><br>* Key issues are nominated by the Proponent in the CSSI 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. | 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.<br><br>2. For each key issue the Proponent must:<br>(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;<br>(b) describe the legislative and policy context, as far as it is relevant to the issue;<br>(c) identify, describe, quantify (if possible) and assess (including modelling as relevant) 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, cumulative impacts (parallel and sequential) with other projects and address and undertake the requirements specified in section 5;<br>(d) demonstrate how potential impacts have been avoided (through design, or construction or operation methodologies);<br>(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);<br>(f) detail how any residual impacts will be managed or offset, and the approach and effectiveness of these measures;<br>(g) measures to monitor the avoidance, minimisation and offsetting of impacts to ensure quantified outcomes and criteria are met.<br><br>3. Where multiple options to avoid or minimise impacts are available, they must be identified and considered, and the proposed measure justified taking into account the public interest. Where mitigation and minimisation options relevant to the proposal have been adopted in another stage of the Sydney Metro West scheme (SSI-10038 and SSI 19238057), they must be identified and considered for the proposal.<br><br>4. The assessment of each key issue must consider (as relevant) the listed guidelines. | |

| Desired Performance Outcome | Requirement | Current Guidelines[1] (as relevant) |
|---|---|---|
| **4. Consultation**<br><br>The proposal is developed with meaningful and effective engagement during proposal design and delivery. | 1. The proposal must be informed by consultation, including with relevant local, State and Commonwealth government agencies, infrastructure and service providers, special interest groups, affected landowners, businesses and the community with specific consultation for each station precinct and the Clyde and Silverwater ancillary facilities.<br><br>2. The consultation process must be documented and include information on how the proposal has responded to the inputs received.<br><br>3. The timing and type of community consultation undertaken or proposed must be described, including the means of facilitating engagement with communities with culturally and linguistically diverse backgrounds, the mechanisms for community feedback, the mechanisms for keeping the community informed, and procedures for complaints handling and resolution. | |

## 5. Key Issue Standard SEARs (in alphabetical order)

| Key Issue and Desired Performance Outcome | Requirement (specific assessment requirements in addition to the general requirement above) | Current Guidelines (as relevant) |
|---|---|---|
| **1. Business**<br><br>The proposal minimises impacts to business function and property including maintenance of appropriate access to businesses. | 1. Impacts to potentially affected businesses and utilities, including property acquisitions/adjustments, access, amenity and relevant statutory rights. | |
| **2. Design, Place and Movement**<br><br>The proposal is well-designed and enhances the environment where it is located, including optimising accessibility and connectivity for communities, improving quality of places for people walking, cycling and using public transport, and enhancing public spaces.<br><br>The proposal contributes to greener places, facilitating the enhancement and provision of green infrastructure.<br><br>The proposal minimises adverse impacts on the visual amenity of the built and natural environment (including public open space). | 1. A **design led process** that is informed, collaborative and iterative, which:<br>(a) utilises good design processes (such as Design Excellence and Design Review);<br>(b) utilises design experts and multidisciplinary teams;<br>(c) is designed with and connected with Country;<br>(d) demonstrates how design integrity will be maintained during detailed design for the Sydney Metro West scheme;<br>(e) involves the community, user groups and other stakeholders.<br><br>2. Identify how the **place and design principles** for the Sydney Metro West scheme have further developed and remain reflective of the design objectives in *Better Placed*.<br><br>3. Illustrate how **place designs, outcomes and actions** protect and facilitate improvements to the built environment and place, including in relation to:<br>(a) built form (including key project elements and amenity impacts to surrounding built environment);<br>(b) access and connectivity for people walking, cycling and using public transport; | Better Placed – An integrated design policy for built environment of New South Wales (Government Architect NSW, 2017)<br><br>Designing with Country (Government Architect NSW, 2020)<br><br>Connecting with Country (Government Architect NSW, 2020)<br><br>Aligning Movement and Place – Outline for understanding places in relation to movement infrastructure (Government Architect of NSW, 2019)<br><br>Practitioner's Guide to Movement and Place (NSW Government 2020)<br><br>Healthy Built Environment Checklist (NSW Government, 2020)<br>Creating Walkable Neighbourhoods (Active Living NSW, 2018) |

| Key Issue and Desired Performance Outcome | Requirement (specific assessment requirements in addition to the general requirement above) | Current Guidelines (as relevant) |
|---|---|---|
| | (c) public space (including public open space, and how that space has been maximised and protected, access to and the quality of that space);<br>(d) residual land;<br>(e) views and vistas (including an assessment of visual impact, and visual representations of the proposal from key locations to illustrate the operational state of the proposal where visual impacts that are deemed greater than medium).<br><br>4. Illustrate how **movement (accessibility and connectivity) principles, outcomes and actions** achieve:<br>(a) balance between "place" and "movement";<br>(b) access for people walking, cycling and using public transport;<br>(c) integration of proposal with wider active and public transport networks and access to public space, town centres and main precincts of activity (currently existing or proposed in the plans and strategies of local councils and state authorities);<br>(d) implementation of universal design and access needs of mobility impaired users.<br><br>5. Demonstrate improvements to:<br>(a) access to public space;<br>(b) access to community facilities or areas providing services to the community, such as local centres;<br>(c) active and public transport including local walking and cycling routes maintained or made more direct, safe and comfortable.<br><br>6. Identify how **green infrastructure design principles** are reflective of the principles in Greener Places and Sydney Green Grid. | Sydney Green Grid – Spatial Framework and Project Opportunities (Tyrrell Studio and Office of the Government Architect, 2017)<br><br>Greener Places – Establishing an urban Green Infrastructure policy for New South Wales (NSW Government, 2020)<br><br>Smart Places Strategy (NSW Government, 2020)<br><br>AS4282-2019 Control of the obtrusive effects of outdoor lighting<br><br>AS4970-2009 Protection of trees on development sites<br>Road User Space Allocation Policy (TfNSW, 2021)<br><br>Cycleway design toolbox: Designing for cycling and micromobility (TfNSW, 2020)<br><br>Walking Space Guide: Towards Pedestrian Comfort and Safety (TfNSW, 2020)<br><br>Water sensitive urban design guideline (TfNSW, 2017)<br><br>Pyrmont Peninsula Place Strategy (DPIE, 2020)<br><br>Draft Westmead Place Strategy<br><br>Draft Bays West Place Strategy |

| Key Issue and Desired Performance Outcome | Requirement (specific assessment requirements in addition to the general requirement above) | Current Guidelines (as relevant) |
|---|---|---|
| | 7. Identify how **green infrastructure designs, actions and outcomes** provide:<br>(a) green infrastructure, including enhancement of open space that supports recreation, biodiversity and waterway health;<br>(b) an increase in tree numbers and canopy within proximity of the impacted area in accordance with the concept approval.<br><br>8. Investigate crowded places strategies for higher volume stations and hostile vehicle mitigation strategies for each station and how such strategies will inform detailed design.<br><br>9. Assess interchange with walking, cycling and public transport at each station including:<br>(a) considerations for people cycling;<br>(b) consideration for people walking (consideration of walking routes to the station, suitability of crossing infrastructure).<br><br>10. Visual and related amenity impacts of construction to existing built and natural environments, including on streetscapes, key sites, landscape works, greenspace, and tree canopy. | Sydney Olympic Park Master Plan 2030 (2018 Review)<br><br>Healthy Built Environment Checklist (NSW Government, 2020), Checklist questions 04 – Transport and connectivity (a) and (b), pages 98-100 |
| **3. Flooding**<br><br>The proposal minimises adverse impacts on existing flooding characteristics.<br><br>Construction and operation of the proposal avoids or minimises the risk of, and adverse impacts from, infrastructure flooding or flooding hazards. | 1. **Flood management objectives** must be clearly identified and justified to address the characteristics of the environment and relevant legislative, management and guidance requirements.<br><br>2. **Flood behaviour** 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) including:<br>(a) maps featuring flood prone lands, flood planning areas (areas below the flood planning level), hydraulic categorisation (flood ways and flood storage areas) and flood hazards; | Floodplain Development Manual (Department of Natural Resources, 2005)<br><br>Practical Consideration of Climate Change – Flood risk management guideline (DECC, 2007)<br><br>Flood Prone Land Package (DPIE, 2021) |

| Key Issue and Desired Performance Outcome | Requirement (specific assessment requirements in addition to the general requirement above) | Current Guidelines (as relevant) |
|---|---|---|
| | (b) assessment of potential flood affectation of other properties, assets and infrastructure against the flood management objectives;<br>(c) consistency (or inconsistency) with applicable Council floodplain risk and stormwater management plans and other similar initiatives;<br>(d) compatibility with the flood hazard of the land;<br>(e) compatibility with the hydraulic functions of flow conveyance in flood ways and storage areas of the land;<br>(f) the likelihood of erosion, siltation, destruction of riparian vegetation on riverbanks and watercourses;<br>(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; and<br>(h) any impacts the development may have on the social and economic costs to the community as consequence of flooding.<br><br>3. Identify measures to achieve the flood management objectives. | Relevant Coastal Management Program(s) or Coastal Zone Management Plan(s) and coastal zone emergency action subplan(s) |
| **4. Heritage**<br><br>The design, construction and operation of the proposal, to the greatest extent possible, the long term protection, conservation and management of the heritage significance of items of environmental heritage.<br><br>The design, construction and operation of the proposal avoids or minimises impacts, to the greatest extent possible, on the heritage significance of environmental heritage. | 1. Impacts to the **heritage significance** of:<br>(a) environmental heritage, as defined under the *Heritage Act 1977*;<br>(b) historical and / or maritime archaeology (including reclaimed land and foreshore areas);<br>(c) items uncovered that are found to have heritage significance that have not been assessed under other stages of the Sydney Metro West scheme (SSI-10038 and SSI 19238057);<br>(d) items listed on the State, Commonwealth (where appropriate) and World Heritage lists;<br>(e) heritage items and conservation areas identified in environmental planning instruments applicable to the proposal area. | NSW Skeletal Remains: Guidelines for Management of Human Remains (Heritage Office, 1998)<br><br>Criteria for assessing Excavation Directors (NSW Heritage Council, 2019)<br><br>NSW Heritage Manual (Heritage Office and Department of Urban Affairs and Planning, 1996)<br><br>Assessing Heritage Significance (NSW Heritage Office, 2001) |

| Key Issue and Desired Performance Outcome | Requirement (specific assessment requirements in addition to the general requirement above) | Current Guidelines (as relevant) |
|---|---|---|
| | 2. An historical and (if relevant) maritime archaeology assessment (including reclaimed land and foreshore areas) should be addressed through assessments prepared by suitability qualified and experienced archaeologist(s) according to NSW Heritage Council Guidelines.<br><br>3. Where impacts to State or locally significant heritage items are identified, the assessment must:<br>(a) include a heritage significance assessment of all heritage items that may be affected by the proposal, a statement of heritage impact for all heritage items and a historical archaeological assessment (where relevant) prepared in accordance with NSW Heritage Council Guidelines;<br>(b) consider and respond to conservation policies of relevant conservation management plans or other strategic heritage planning documents (such as, heritage conservation strategy);<br>(c) consider impacts to the significance of the item caused by, but not limited to, vibration, demolition, archaeological disturbance including new or altered services, change of use, altered historical arrangements and access, visual amenity, landscape and vistas, curtilage, subsidence and architectural noise treatment, drainage infrastructure, contamination remediation, site compounds (as relevant) and whether these are permanent or temporary impacts or structures;<br>(d) outlining measures to avoid and minimise identified impacts during construction and operation in accordance with the current guidelines; and<br>(e) 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 2019). | The Australia ICOMOS Burra Charter 2013<br>Assessing Significance for Historical Archaeological Sites and 'Relics' (Heritage Branch, Department of Planning, 2009)<br><br>Archaeological Assessment (Heritage Office and Department of Urban Affairs and Planning, 1996)<br><br>Historical Archaeology Code of Practice (Heritage Office, 2006) |

| Key Issue and Desired Performance Outcome | Requirement (specific assessment requirements in addition to the general requirement above) | Current Guidelines (as relevant) |
|---|---|---|
| **5. Noise and Vibration**<br><br>Construction noise and vibration (including airborne noise, ground-borne noise) are effectively managed to minimise adverse impacts on acoustic amenity, and adverse impacts on the structural integrity of buildings and items.<br><br>Noise emissions and vibration affecting nearby properties and other sensitive receivers during operation of the proposal are effectively managed to protect the amenity and well-being of the community. | 1. **Construction and operational noise and vibration** impacts in accordance with relevant NSW noise and vibration guidelines.<br><br>2. The assessment must clearly differentiate between activities within the enclosed tunnels, activities below ground but not enclosed and activities on the surface and describe their impacts and proposed hours of work.<br><br>3. The assessment of **construction noise and vibration** must address:<br>(a) the nature of construction activities and related noise characteristics using typical and worst-case scenarios;<br>(b) the intensity and duration of noise (both air and ground borne) and vibration impacts. This must include consideration of the construction program, high noise generating activities and extended construction impacts associated with ancillary facilities (and the like) and construction fatigue;<br>(c) the identification and nature of receivers, existing and proposed, during the construction period;<br>(d) the structural integrity and heritage significance of items (including Aboriginal places and items of environmental heritage);<br>(e) the nature of the impact and the sensitivity of receivers and level of impact including for out of hours work;<br>(f) the need to balance timely conclusion of noise and vibration-generating works with periods of receiver respite, and other factors that may influence the timing and duration of construction activities (such as traffic management);<br>(g) statement of the proposed hours of construction. Justification must be provided where these are not consistent with standard construction hours stated in the *Interim Construction Noise Guideline*;<br>(h) noise impacts of out-of-hours works (including utility works and works associated with the proposal including the potential | Technical Basis for Guidelines to Minimise Annoyance due to Blasting Overpressure and Ground Vibration (ANZECC, 1990)<br><br>Assessing Vibration: a technical guideline (DEC, 2006)<br>Interim Construction Noise Guideline (DECC, 2009)<br><br>Noise Policy for Industry (EPA, 2017)<br><br>Sydney Metro Construction Noise and Vibration Standard (2021)<br><br>Rail Infrastructure Noise Guideline (EPA, 2013)<br>NSW Road Noise Policy (DECCW, 2011)<br><br>Environmental Noise Management Manual (RMS 2001)<br><br>Development Near Rail Corridors and Busy Roads – Interim guideline (DoP, 2008)<br><br>Noise Mitigation Guideline (RMS, 2015)<br><br>Noise Criteria Guideline (RMS, 2015)<br><br>German Standard DIN 4150-3: Structural Vibration - effects of vibration on structures |

| Key Issue and Desired Performance Outcome | Requirement (specific assessment requirements in addition to the general requirement above) | Current Guidelines (as relevant) |
|---|---|---|
| | cumulative impacts of those undertaken under another assessment pathway), possible locations where out-of-hours works would be undertaken, the activities that would be undertaken, the estimated duration of those activities, the relevant stage the activities are proposed and justification for these activities;<br>(i) assessment of construction traffic noise on public roads must include consideration of gradient, construction vehicle type, acceleration and deceleration and potential annoyance;<br>(j) sleep disturbance (including the number of noise-awakening events);<br>(k) a cumulative noise and vibration assessment inclusive of impacts from the proposal, including concurrent and consecutive construction activities within the proposal, the Sydney Metro West scheme and the construction of other relevant development in the vicinity of the proposal when considering mitigation;<br>(l) qualitative assessment of the predicted effectiveness of management and mitigation measures (including, where relevant, case studies from other Sydney Metro projects)to manage identified impacts, including impacts as identified in (k);<br>(m) any potential residual noise and vibration impacts following application of mitigation measures;<br>(n) a description of how receiver feedback received during the preparation of the EIS has been taken into account (and would be taken into account post exhibition of the EIS) in the design of mitigation measures, including any tailored mitigation, management and communication strategies for sensitive receivers.<br><br>4. The process for community engagement should be included or referenced in the noise and vibration assessment as part of the mitigation strategy and assessment. | |

| Key Issue and Desired Performance Outcome | Requirement (specific assessment requirements in addition to the general requirement above) | Current Guidelines (as relevant) |
|---|---|---|
| 6. **Social**<br><br>The proposal provides socially sustainable outcomes.<br><br>The proposal maximises the social and economic welfare of the community.<br><br>The proposal delivers good development outcomes by minimising negative social impacts and enhancing positive social impacts on affected communities. | 1. Potential **social impacts of the proposal**, in accordance with the DPIE Social Impact Assessment Guideline (the Guideline), including but not limited to:<br>(a) consideration of the principles of section 1.2 of the Guide;<br>(b) consideration of Satisfying the Review Questions in Appendix C of the Guideline;<br>(c) considering the social impacts that the proposal may have on people's:<br>– way of life;<br>– community;<br>– access to and use of infrastructure, services, and facilities;<br>– culture;<br>– health and wellbeing;<br>– surroundings;<br>– livelihoods;<br>– decision-making systems;<br>(d) the distributive equity of impacts and benefits (i.e., the ways in which different social groups may experience the proposal, paying particular attention to vulnerable groups);<br>(e) assessing positive, negative, and cumulative social impacts.<br><br>2. Identify management, mitigation and monitoring measures to minimise negative social impacts and identify potential opportunities for positive social outcomes, including specific placemaking measures which may enhance wellbeing and sense of place. | Social Impact Assessment Guideline, State significant projects (DPIE, 2021) |

| Key Issue and Desired Performance Outcome | Requirement (specific assessment requirements in addition to the general requirement above) | Current Guidelines (as relevant) |
|---|---|---|
| **7. Transport and Traffic**<br><br>Network connectivity, safety and efficiency of the transport system in the vicinity of the proposal are managed to minimise impacts.<br><br>The safety of transport system customers is maintained, with a focus on vulnerable road users (people walking and cycling).<br><br>Access and connectivity for people walking and cycling or using public transport is maintained or improved relative to the existing situation.<br><br>Impacts on road network capacity and the level of service for all road users are acceptable and effectively managed.<br><br>Works are compatible with existing infrastructure and future transport corridors. | 1. **Construction transport and traffic (vehicle, pedestrian and cyclists) impacts**, including, but not necessarily limited to:<br>(a) a considered approach to route identification and scheduling of construction vehicle movements;<br>(b) the indicative number, frequency and size of construction related vehicles (passenger, commercial and heavy vehicles, including spoil management movements) across the construction schedule;<br>(c) construction worker parking and management;<br>(d) the nature of current traffic (types and number of movements) on construction access routes (including consideration of peak traffic times and sensitive road users (such as emergency vehicles and school buses) and parking arrangements);<br>(e) access constraints and impacts on public transport (infrastructure and services), pedestrians and cyclists and property;<br>(f) access constraints and impacts during the staging of major events at Sydney Olympic Park and Rosehill;<br>(g) the need to close, divert or otherwise reconfigure elements of the road, pedestrian and cycle network associated with construction of the proposal and the duration of these changes; and<br>(h) impacts to on-street parking, loading, servicing, and drop off and pick up, including to residents and businesses.<br><br>2. **Operational transport impacts** of the proposal, including:<br>(a) performance of key interchanges and intersections around station precincts by undertaking a level of service analysis at key locations;<br>(b) performance of key interchanges and intersections around station precincts and ancillary facilities for people walking or cycling within and through the station precinct and surrounds, or to and from the metro station and other forms of transit;<br>(c) wider transport interactions (local and regional roads, cycling, public | Guide to Traffic Management – Part 3 Traffic Study and Analysis Methods (Austroads, 2020)<br><br>Guide to Traffic Generating Developments Version 2.2 (RTA, 2002)<br><br>Cycling Aspects of Austroads Guides (Austroads, 2017)<br><br>NSW Bicycle Guidelines v 1.2 (RTA, 2005)<br><br>Planning Guidelines for Walking and Cycling (DIPNR, 2004)<br><br>Walking Space Guide: Towards Pedestrian Comfort and Safety (TfNSW, 2020) |

| Key Issue and Desired Performance Outcome | Requirement (specific assessment requirements in addition to the general requirement above) | Current Guidelines (as relevant) |
|---|---|---|
| | and freight transport);<br>(d) induced traffic and operational implications for public transport (particularly with respect to strategic bus corridors and bus routes) and consideration of opportunities to improve other forms of public transport; and<br>(e) property and business access and on-street parking (including loading, servicing, and drop off and pick up). | |
| **8. Water - Hydrology**<br><br>Long term impacts on surface water and groundwater hydrology are minimised.<br><br>The environmental values of nearby, connected and affected water sources, including estuarine and marine water (if applicable) are maintained (where values are achieved) or improved and maintained (where values are not achieved).<br><br>Sustainable use of water resources. | 1. Describe (and map where relevant) the existing hydrological regime for any surface water resource (including reliance by users and for ecological purposes) likely to be impacted by the proposal, including stream orders, as per the Framework for Biodiversity Assessment (FBA).<br><br>2. Provide a water balance for surface water including the proposed intake and discharge locations, volume, frequency and duration.<br><br>3. Surfacer hydrology impacts of the construction and operation of the proposal and any ancillary facilities (both built elements and discharges) in accordance with the current guidelines, including:<br>(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;<br>(b) changes to environmental water availability and flows, both regulated / licensed and unregulated / rules-based sources;<br>(c) direct or indirect increases in erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses;<br>(d) minimising the effects of proposed stormwater and wastewater | Framework for Biodiversity Assessment – Appendix 2 (OEH, 2014)<br><br>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)<br><br>Transport for NSW Sustainable Design Guidelines Version 4.0 (TfNSW, 2017)<br><br>Guidelines for Controlled Activities on Waterfront Land (DPI, 2018)<br><br>Water Sharing Plans<br><br>Water sensitive urban design guideline (TfNSW, 2017) |

| Key Issue and Desired Performance Outcome | Requirement (specific assessment requirements in addition to the general requirement above) | Current Guidelines (as relevant) |
|---|---|---|
| | 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<br>(e) water take (direct or passive) from all surface water sources with estimates of annual volumes during construction and operation.<br><br>4. Identify any **requirements for baseline monitoring** of hydrological attributes. | |
| **9. Water - Quality**<br><br>The proposal is designed, constructed and operated to protect the NSW Water Quality Objectives (WQOs) where they are currently being achieved, and contribute towards achievement of the WQOs over time where they are currently not being achieved, including downstream of the proposal to the extent of the proposal impact including estuarine and marine waters (if applicable). | 1. **Surface water and groundwater quality** impacts, including:<br>(a) identifying and estimating the discharge water quality 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;<br>(b) identifying the rainfall event that the water quality protection measures will be designed to comply with;<br>(c) assessing the significance of identified impacts including consideration of the relevant ambient water quality outcomes;<br><br>2. Demonstrating how construction and operation of the proposal will, to the extent that the proposal can influence, ensure that:<br>(a) where the NSW WQOs for receiving waters are currently being met they will continue to be protected;<br>(b) where the NSW WQOs are not currently being met, activities will work toward their achievement over time;<br>(c) justifying, if required, why the WQOs cannot be maintained or achieved over time. | NSW Water Quality and River Flow Objectives<br><br>Using the ANZECC Guidelines and Water Quality Objectives in NSW (DEC, 2006)<br><br>Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZG, 2018)<br><br>Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (DECC, 2008)<br><br>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) |

| Key Issue and<br>Desired Performance Outcome | Requirement<br>(specific assessment requirements in addition to the general requirement above) | Current Guidelines (as relevant) |
|---|---|---|
| **10. Other** | 1. An assessment of the following issues must be undertaken in accordance with the commitments in Section 5 of *Sydney Metro West Scoping Report – Rail infrastructure, stations, precincts and operations* (Sydney Metro, June 2021):<br>(a) Aboriginal heritage;<br>(b) Air quality;<br>(c) Biodiversity;<br>(d) Climate change risk and adaption;<br>(e) Greenhouse gas and energy;<br>(f) Hazard and risk;<br>(g) Property and land use;<br>(h) Soils, contamination and groundwater;<br>(i) Waste management and resource use;<br>(j) Cumulative impacts. | |