



21 March 2022

Erica van den Honert
Executive Director, Transport Assessments
Department of Planning and Environment
4 Parramatta Square, 12 Darcy St
Parramatta, NSW 2150

Dear Erica,

Sydney Metro West – Concept and Stage 1 – Modification 2 Clyde stabling and maintenance facility (SSI-10038-Mod-2): Response to submissions

Sydney Metro is seeking a modification to the approved Concept and major civil construction work between Westmead and The Bays (Stage 1 of the Sydney Metro West project), as it relates to the Clyde stabling and maintenance facility construction site.

The Modification Report to support this proposed modification was placed on public exhibition in November 2021 for a period of two weeks, with the exhibition ending on 08 December 2021. During this time four submissions were received, as follows:

- Two public submissions from members of the community raising issues regarding the scope of the project and potential flooding impacts
- One organisation, the Australian Turf Club, raising issues regarding the potential impact on their adjacent land and access to the Racecourse
- One public authority, City of Parramatta Council, raising issues regarding the rationale for the proposed modification and potential impacts associated with flooding, heritage, transport and land use.

One of the public submissions objected to the project, and the other three submissions provided comments. No objection was received from City of Parramatta Council.

In addition to the four submissions, comments were provided to the Department of Planning and Environment from Heritage NSW and the Environment, Energy and Science Group of the Department.

Sydney Metro has considered and prepared responses to the issues raised in the four submissions in accordance with section 5.17(6)(a) of the *Environmental Planning and Assessment Act 1979*. Sydney Metro has also prepared a response to the agency advice received, and this includes the addition of a new mitigation measure (B4) to manage potential biodiversity impacts.

Sydney Metro

Level 43, 680 George Street, Sydney NSW 2000 | PO Box K659, Haymarket NSW 1240
T 02 8265 9400 | sydneymetro.info | ABN 12 354 063 515

Responses to the submissions, agency advice and the consolidated revised mitigation measures can be found in the following attachments:

- Attachment A: Response to submissions
- Attachment B: Response to agency advice
- Attachment C: Revised environmental mitigation measures

If you have any questions or require any further information, please contact Ryan Butler, Senior Manager Planning Approvals, at ryan.butler@transport.nsw.gov.au.

Yours sincerely,



Carolyn Riley

Director Environment, Sustainability and Planning
Metro West
Sydney Metro

M 0466 476 128

sydneymetro.info

Level 43, 680 George Street, Sydney NSW 2000
PO Box K659, Haymarket NSW 1240



Attachment A – Response to submissions

Table A-1 Response to issues raised in the submissions

Item	Submission issue	Response
1. Public submissions		
<i>Sydney Metro West scope – approved alignment between Sydney Olympic Park and North Strathfield</i>		
1.1	<p>Concerns relating to the proposed horizontal geometry of the Sydney Metro West line between Sydney Olympic Park Station and North Strathfield Station, and a request that the tighter horizontal geometry along this section of the line is amended.</p> <p>The tight horizontal geometry could affect the speed of the metro, may result in ground-borne noise impacts or potential property damage for structures above the corridor. Dilapidation surveys should be considered for all properties above the final metro alignment to ensure any structural impacts are identified and compensation made.</p>	<p>The Sydney Metro West Concept, from Westmead to the Sydney CBD, as well as major civil construction work between Westmead and The Bays (Stage 1) was granted approval by the Minister for Planning and Public Spaces on 11 March 2021 (SSI-10038).</p> <p>The proposed modification relates to major civil construction work at the Clyde stabling and maintenance facility. The geometry of the Sydney Metro West line between Sydney Olympic Park metro station and the North Strathfield metro station is outside the scope of the proposed modification.</p> <p>However, when the geometry for the Sydney Metro West tunnel alignment was developed, a guiding principle used was to offer a faster trip than would be possible on the existing T1 Western Line between Parramatta and the Sydney CBD. Travel time between the two cities is important to support both the ‘30-minute city’ concept and to improve customer, transport and land use outcomes. This principle has influenced further development of the Sydney Metro West alignment. Other environmental factors that have been considered in developing the alignment include avoiding known constraints such as existing buildings, basements, utilities, infrastructure (including other rail and road infrastructure), and minimising potential impacts on environmental and social features.</p> <p>The tunnels would be constructed in accordance with relevant Australian and international standards and run beneath major roads, open spaces, public buildings and other properties. The Environmental Impact Statement and previous experience delivering metro projects in Australia demonstrate the impacts anticipated from tunnelling are manageable. The following measures would be implemented to mitigate any potential impacts to properties from noise, vibration and ground movement:</p>

Item	Submission issue	Response
		<ul style="list-style-type: none"> • Mitigation measure NV16: Where vibration levels are predicted to exceed the screening criteria, a more detailed assessment of the structure (in consultation with a structural engineer) and vibration monitoring would be carried out to ensure vibration levels remain below appropriate limits for that structure. For heritage items, the more detailed assessment would specifically consider the heritage values of the structure in consultation with a heritage specialist to ensure sensitive heritage fabric is adequately monitored and managed • Mitigation measure NV17: Condition surveys of buildings and structures near to the tunnel and excavations would be undertaken prior to the commencement of excavation at each site, where appropriate. For heritage buildings and structures, the surveys would consider the heritage values of the structure in consultation with a heritage specialist • Mitigation measure GW5: A detailed geotechnical and hydrogeological model for Stage 1 would be developed and progressively updated during design and construction. The detailed geotechnical and hydrogeological model would include an assessment of the potential for damage to structures, services, basements and other sub-surface elements through settlement or strain. Where building damage risk is rated as moderate or higher (as per the CIRIA 1996 risk-based criteria), a structural assessment of the affected buildings/structures would be carried out and specific measures implemented to address the risk of damage • Mitigation measure GW6: Condition surveys of buildings and structures in the vicinity of the tunnel and excavations would be carried out prior to the commencement of excavation at each site.
<i>Flooding and waterway conditions around Duck River</i>		
1.2	Concerns on how potential flooding impacts would be mitigated to protect surrounding residents and structures and how the condition of the Duck River and surrounding waterways would be managed. Request for further information on how flooding	<p>As stated in Section 5.6 of the Modification Report, changes in potential flooding impacts would be negligible compared to the approved project with increases identified in some areas while other areas would experience a reduction in flood levels.</p> <p>Sydney Metro is consulting with Parramatta Council, NSW State Emergency Service and NSW Department of Planning and Environment regarding the flooding and hydraulic</p>

Item	Submission issue	Response
	<p>risks from any excavation or new foundations will be mitigated and request for support from Parramatta City Council and Sydney Water to clean debris from the waterways, creeks and rivers.</p>	<p>conditions anticipated at the Clyde stabling and maintenance facility site as a result of the approved project. This includes further design refinement to mitigate potential flooding impacts as per mitigation measure HF3, and to not worsen flooding characteristics within and in the vicinity of the project in accordance with Condition D10.</p> <p>In accordance with Condition C-B10, parts of Duck Creek and A'Becketts Creek must be rehabilitated and / or renaturalised before operation of the approved project. Further information on this rehabilitation work would be provided in the future Sydney Metro West planning application - Rail infrastructure, stations, precincts and operations.</p> <p>The following measures would be implemented to mitigate impacts on water quality:</p> <ul style="list-style-type: none"> <p>Mitigation measure SSWQ3: Erosion and sediment measures would be implemented at all construction sites in accordance with the principles and requirements in <i>Managing Urban Stormwater – Soils and Construction, Volume 1</i> (Landcom 2004) and <i>Volume 2D</i> (NSW Department of Environment, Climate Change and Water 2008), commonly referred to as the 'Blue Book'. Additionally, any water collected from construction sites would be appropriately treated and discharged to avoid any potential contamination or local stormwater impacts. Temporary sediment basins would be designed in accordance with <i>Managing Urban Stormwater: Soils and Construction and Managing Urban Stormwater, Volume 2D: Main Road Construction</i> (DECC, 2008)</p> <p>Mitigation measure SSWQ4: Works in waterways and surrounding low lying areas would be carried out in accordance with progressive erosion and sediment control plans.</p> <p>Mitigation measure SSWQ6: A surface water monitoring program would be implemented to observe any changes in surface water quality that may be attributable to Stage 1 and inform appropriate management responses. The program would be developed in consultation with the EPA and relevant Councils. Monitoring would occur during pre-construction and during construction at all waterways with the potential to be impacted. Monitoring sites could be located</p>

Item	Submission issue	Response
		<p>upstream and downstream of the potential discharges and would include sampling for key indicators of concern.</p> <p>A Soil and Water Management Plan and progressive erosion and sediment control plans would also be prepared in accordance with Sydney Metro's Construction Environmental Management Framework.</p> <p>Information on potential impacts to the waterways can be found in the Sydney Metro West Environmental Impact Statement, Submissions Report, Amendment Report and Modification Report for Westmead to The Bays and Sydney CBD. Other information regarding Sydney Metro West in this area would be provided through community project updates.</p>
2. Organisation submission – Australian Turf Club		
<i>Sydney Metro impacting Australian Turf Club land</i>		
2.1	<p>The Australian Turf Club expressed concern on whether their land was to become unusable as a result of the construction of Sydney Metro West.</p> <p>The Australian Turf Club identified that the Rosehill Gardens site operates 365 days a year, including both race day and non-race day activities, and is responsible for generating \$562.5 million in direct and indirect gross output to the economy. Ongoing use and access to the site is critical for the Australian Turf Club and the economy of western Sydney.</p>	<p>The proposed works at Clyde stabling and maintenance facility have been designed and planned to minimise impacts on surrounding property and land uses. Information on the potential impacts to property and land use can be found in the Sydney Metro West Environmental Impact Statement, Submissions Report, Amendment Report and Modification Report for Westmead to The Bays and Sydney CBD.</p> <p>It is not anticipated that Australian Turf Club land would become unusable as a result of the proposed works at Clyde stabling and maintenance facility and operation of the Rosehill Gardens Racecourse can continue during construction of the project, for both race day and non-race day activities. Access to Australian Turf Club land would continue to be provided, refer to the response to Item 2.2 below for further details.</p> <p>Sydney Metro will continue to engage with the Australian Turf Club to ensure potential impacts are avoided or appropriately mitigated. For example, implementation of mitigation measures NV15 and NV20 will ensure ongoing consultation with the Australian Turf Club and owners and operators of the horse stables so that potential noise impacts to horses stabled at the site and the operation of race day and non-race day activities are appropriately managed.</p>

Item	Submission issue	Response
	<i>Access to Rosehill Gardens Racecourse</i>	
2.2	Request that the removal of the footbridge is replaced with levelled access from the P4 carpark into the Australian Turf Club site and Rosehill Gardens Racecourse. Provision of safe access and egress is critical to raceday and non-raceday events and to ensure patrons do not need to walk through an operating car park to access the site	<p>Safe pedestrian and cyclist access would be maintained around construction sites during construction, in accordance with Condition D98. In addition, a new, safe alternative crossing of the former T6 Carlingford Line would be provided prior to removal of the Rosehill Railway Station Footbridge, as proposed in the Modification Report. Provision of this new alternative crossing would avoid the potential safety concerns of other access options, as raised by the Australian Turf Club.</p> <p>As part of future planning applications, Sydney Metro is considering publicly accessible active transport and integration with strategic planning for the precinct around the Clyde stabling and maintenance facility, including the Rosehill Gardens Racecourse. Consultation would continue with the Australian Turf Club as part of the future Sydney Metro West planning application - Rail infrastructure, stations, precincts and operations (consistent with Condition C-B2) to ensure the provision of a safe, permanent access and egress for Rosehill Gardens Racecourse.</p>
3. Public Authority submission – City of Parramatta Council		
	<i>Timing of exhibition</i>	
3.1	Council raised concern that exhibition should not be during holiday periods or during local government elections.	<p>The exhibition of the Modification Report was carried out over a two-week period between November and December 2021. The consultation period provided the community and other stakeholders an opportunity to provide feedback on the proposed modification.</p> <p>The Department of Planning and Environment administers the process for exhibition of and receiving submissions on planning approval documentation in accordance with the <i>Environmental Planning and Assessment Act 1979</i>. This exhibition period considered the length and details of the Modification Report as well as the time of year. The duration and timing of the exhibition period was the same for both community members and government stakeholders, such as councils.</p>
	<i>Rationale for the modification</i>	
3.2	Council requested further information on the proposed modification rationale including:	As part of design development and construction planning, opportunities for further improvement for managing impacts and improved construction processes have been

Item	Submission issue	Response
	<ul style="list-style-type: none"> • The Rosehill dive structure (as council's preferred position for the structure is as south as possible) and where the Sydney Water sewer could be diverted (and the resulting impacts) • The Kay Street and Unwin Street realignment. 	<p>identified resulting in the revised Rosehill dive structure location and design for the Kay Street and Unwin Street realignment.</p> <p>As stated in Section 2.2 of the Modification Report, the location of the Rosehill dive structure as identified in the approved project would require diversion of a major Sydney Water sewer. The sewer runs parallel to the former T6 Carlingford Line and its diversion would involve intensive construction works adjacent to sensitive receivers and within an area that is at risk from flooding.</p> <p>The revised location of the Rosehill dive structure was selected to avoid further impacts to private property, public roads to the west, and commercial properties to the east by remaining within the former T6 Carlingford Line rail corridor. Remaining within the rail corridor, with a revised location south or north of the revised location, would require relocation of the sewer and not allow sufficient space for other construction activities on site.</p> <p>Relocating the Rosehill dive structure as outlined in the Modification Report would avoid the need to divert the Sydney Water sewer and allow for associated noise, visual and hydraulic impacts to be better managed and/or avoided.</p> <p>Similarly, the Kay Street and Unwin Street realignment, through further construction planning, would reduce the need to disturb potentially contaminated soils at the Clyde stabling and maintenance facility. As stated in Section 2.2 of the Modification Report, it would also provide the following benefits:</p> <ul style="list-style-type: none"> • Reduced ongoing maintenance for an underpass (reduced power and no dewatering) • Improved safety, compared to an underpass (as users, including vehicles, are visible) • Ability to reuse materials onsite (into the retaining structures) • Reduced requirements to relocate underground utilities • Better value for money (due to reduced excavation). <p>It would also reduce the operational footprint of the road compared to designs proposed in the Environmental Impact Statement, Submissions Report and Amendment Report provided as part of the Concept and Stage 1 planning application.</p>

Item	Submission issue	Response
<i>Land use planning</i>		
3.3	<p>The modification should consider integration with the broader Camellia Rosehill Place Strategy, currently being undertaken by the NSW Department of Planning and Environment, noting:</p> <ul style="list-style-type: none"> • The need to locate social infrastructure, such as schools, open space, recreation and community facilities, and for these to remain accessible, have amenity and avoid impacts such as views noise and vibration • The need to provide connectivity, including road and active transport networks within and from the precinct. 	<p>Sydney Metro is consulting with the NSW Department of Planning and Environment to ensure appropriate integration of the Sydney Metro West project with the Camellia Rosehill Place Strategy that is currently under development. In accordance with Condition C-B2, the future Sydney Metro West planning application - Rail infrastructure, stations, precincts and operations would consider integration with strategic planning for the precinct at the Clyde stabling and maintenance facility site. This includes the need to consider the location of and accessibility to social infrastructure, and to avoid impacts on amenity and connectivity for road and active transport networks within and from the precinct.</p>
<i>Transport planning</i>		
3.4	<p>The modification should consider the active transport recommendations such as:</p> <ul style="list-style-type: none"> • Inclusion of a shared path for cyclists and pedestrians on the western side up to Unwin Street and provision for a footpath on eastern side of the street • Continued pedestrian access to Unwin Street and Rosehill Racecourse, with attention to legible and DDA compliant access from the signalised pedestrian crossing of James Ruse Drive and Prospect Street • A regional scale walking and cycling path user path planned along the former T6 rail corridor • Realignment of Kay Street and Unwin Street should accommodate pedestrian and cycling 	<p>Sydney Metro is consulting with the NSW Department of Planning and Environment and Parramatta City Council to ensure integration of the Sydney Metro West project with the Camellia Rosehill Place Strategy. In accordance with Condition C-B2, the future Sydney Metro West planning application - Rail infrastructure, stations, precincts and operations would consider integration with strategic planning for the precinct at the Clyde stabling and maintenance facility site. This includes connectivity for road and active transport networks within and from the precinct.</p> <p>As stated in Section 4.1 of the Modification Report, a shared path would be provided to accommodate pedestrians and cyclists on one side of the Kay Street and Unwin Street realignment. The signalised pedestrian crossing of James Ruse Drive at Prospect Street would be maintained in its current state. An alternative crossing of the former T6 Carlingford Line prior to removal of the Rosehill Railway Station Footbridge would also be provided during construction. A permanent pedestrian and cycling crossing would be considered of the former T6 Carlingford Line part of the future Sydney Metro West planning application - Rail infrastructure, stations, precincts and operations.</p>

Item	Submission issue	Response
	access to cross James Ruse Drive (during construction and operation).	<p>Safe pedestrian and cyclist access would be maintained around construction sites during construction. If impacts to existing pedestrian and cyclist access is unavoidable, an alternative route which complies with the relevant standards would be provided before removal in accordance with Condition D98.</p> <p>Other active transport opportunities, such as a regional walking and cycling path along the former T6 rail corridor and pedestrian and cycling connections across James Ruse Drive, would be considered as part of the future Sydney Metro West planning application - Rail infrastructure, stations, precincts and operations, in consultation with the NSW Department of Planning and Environment and Parramatta City Council.</p>
<i>Heritage - Rosehill Railway Station and Rosehill Station Footbridge</i>		
3.5	Rosehill Railway Station Footbridge should remain in situ, however consideration of the dismantling, salvaging and future relocation of the heritage asset is supported if this is not possible. Council's preference is for the bridge to be reinstated as either part of the Sydney Metro West works in Clyde or, if this is not possible, as part of other Transport for NSW projects in Parramatta.	<p>In developing the proposed modification, Sydney Metro considered a range of options for the location of the dive structure and balanced their potential impacts. This balanced consideration concluded the best option for the location of the dive structure required removal of the Rosehill Railway Station Footbridge.</p> <p>Provision of a dive structure that retains the footbridge would result in significant impacts associated with diversion of a major Sydney Water sewer, including intensive construction works adjacent to sensitive receivers and within an area that is at risk from flooding. Retention of the footbridge would also impede construction access.</p> <p>Consideration of options for the reinstatement, salvage or reuse of the footbridge was provided in Table 2-1 of the Modification Report. Reinstatement and reuse in an alternative location were not identified as the preferred options as its heritage significance would be reduced by removing it from its context or as a result of the significant changes required to ensure it is <i>Disability Discrimination Act 1992</i> compliant.</p> <p>The footbridge would be carefully dismantled and salvaged, and consideration would be given to reuse opportunities of significant heritage fabric in accordance with mitigation measure NAH11 and Condition D18. Sydney Metro is consulting with other parts of Transport for NSW on options for reuse of its fabric.</p>

Item	Submission issue	Response
3.6	A Statement of Heritage Impact (SoHI) should be prepared for the removal of Rosehill Railway Station Footbridge in addition to a detailed design and a conservation management plan (CMP) must be in place for return in situ or for the relocated/reconstructed and restored item including eventually reinstated missing features.	<p>A Statement of Heritage Impact (SoHI), prepared by qualified heritage specialists, has assessed the removal of the Rosehill Railway Station and Rosehill Railway Station Footbridge and is provided in Appendix D: Non-Aboriginal heritage assessment of the Modification Report.</p> <p>In accordance with Condition D18, heritage items proposed to be removed would be included in salvaged materials and moveable heritage register developed by the proponent in consultation with a qualified heritage specialist.</p> <p>Archival recording would occur of the listed heritage item, Rosehill Railway Station Footbridge and associated station infrastructure, in accordance with mitigation measure NAH1.</p> <p>Further consideration would be given to whether relocation is a viable option. If relocation is viable, a conservation management document would be prepared to guide its reconstruction and future management.</p>
<i>Flooding</i>		
3.7	Further investigation of alternative solutions that do not result in adverse changes to flood levels or hydraulic conditions are recommended. These solutions should also be environmentally acceptable and consider potential creek erosion issues.	<p>As stated in Section 5.6 of the Modification Report, negligible changes to potential flooding impacts are anticipated as a result of the proposed modification compared to the approved project with increases in some areas while other areas would experience a reduction in flood levels.</p> <p>Sydney Metro is consulting with Parramatta Council, NSW State Emergency Service and NSW Department of Planning and Environment regarding potential flooding and hydraulic conditions anticipated at the Clyde stabling and maintenance facility site as a result of the approved project. This includes further design refinement to mitigate potential impacts as per mitigation measure HF3, and to not worsen flooding characteristics within and in the vicinity of the approved project in accordance with Condition D10.</p> <p>The following measures would be implemented to mitigate potential erosion impacts:</p> <ul style="list-style-type: none"> • Mitigation measure SSWQ3: Erosion and sediment measures would be implemented at all construction sites in accordance with the principles and

Item	Submission issue	Response
		<p>requirements in <i>Managing Urban Stormwater – Soils and Construction, Volume 1</i> (Landcom 2004)¹ and <i>Volume 2D</i> (NSW Department of Environment, Climate Change and Water 2008)², commonly referred to as the ‘Blue Book’. Additionally, any water collected from construction sites would be appropriately treated and discharged to avoid any potential contamination or local stormwater impacts. Temporary sediment basins would be designed in accordance with <i>Managing Urban Stormwater: Soils and Construction and Managing Urban Stormwater, Volume 2D: Main Road Construction</i> (DECC, 2008)</p> <ul style="list-style-type: none"> • Mitigation measure SSWQ4: Works in waterways and surrounding low lying areas would be carried out in accordance with progressive erosion and sediment control plans. <p>A Soil and Water Management Plan and progressive erosion and sediment control plans would also be prepared in accordance with Sydney Metro’s Construction Environmental Management Framework.</p> <p>Information on the impacts on the waterways may be found in Sydney Metro West Environmental Impact Statement, Submissions Report, Amendment Report and Modification Report for Westmead to The Bays and Sydney CBD. Other information regarding Sydney Metro West in this area would be provided through community project updates.</p>

¹ Landcom (2004), *Managing Urban Stormwater – Soils and Construction, Volume 1*. Landcom

² DECC (2008), *Managing Urban Stormwater: Soils and Construction and Managing Urban Stormwater, Volume 2D: Main Road Construction*. NSW Department of Environment, Climate Change and Water

Item	Submission issue	Response
<i>Matters raised previously on the Environmental Impact Statement</i>		
3.8	Council noted matters raised previously on the Sydney Metro West Environmental Impact Statement – Westmead to The Bays and Sydney CBD.	The subject of the proposed modification relates to the major civil construction work at the Clyde stabling and maintenance facility including relocation and extension of the Rosehill dive structure and the Kay Street and Unwin Street realignment. Matters previously raised by City of Parramatta Council on the Environmental Impact Assessment were responded to in Section 7.3 of <i>Sydney Metro West Westmead to The Bays and Sydney CBD Submissions Report</i> .

Attachment B – Response to agency advice

Table B-1 **Response to issues raised in agency advice**

Item	Issue	Response
Heritage NSW		
<i>Heritage regarding the Rosehill Railway Station</i>		
1.1	The submission recommends liaison with the local Council and State Government agencies and assessment of the Rosehill Railway Station prior to any works commencing, with confirmation of significance values. The submission recommends advice to be sought from the relevant state government agency to address s.170 requirements under the <i>Heritage Act 1977</i> about the removal of the item.	<p>Engagement was undertaken with City of Parramatta Council and Transport for NSW prior to and during public exhibition of the Modification Report.</p> <p>An assessment of significance was prepared within the SoHI as part of the Modification Report for the unlisted heritage item, Rosehill Railway Station and concluded it to be significant at a local level. Archival recording would be carried out in accordance with mitigation measure NAH1 prior to any works commencing. Sydney Metro has advised Transport for NSW of the potential removal of the footbridge. Heritage NSW would be notified in accordance with s170 of the <i>Heritage Act 1977</i>.</p>
Environment, Energy and Science Group		
<i>Biodiversity including vegetation clearing and revegetation</i>		
2.1	<p>The submission recommends additional mitigation and management measures for the following prior to clearing of any local native vegetation:</p> <ul style="list-style-type: none"> • Native seed collection & plant propagation program • Translocation of juvenile and mature native plants • Pre-clearance fauna surveys. 	<p>The Sydney Metro Construction Environmental Management Framework provides a framework for the environmental, stakeholder and community management requirements for construction. It requires the contractor to develop and implement a Flora and Fauna Management Plan which would measures to be implemented before, during and after construction to avoid and minimise potential biodiversity impacts.</p> <p>The minimum requirements, including mitigation measures, for the Flora and Fauna Management plan are detailed in Section 10.2 of the Construction Environmental Management Framework and include the following that would be implemented prior to construction:</p> <ul style="list-style-type: none"> • Procedures for clearing of vegetation and relocation of flora and fauna • Procedures for the demarcation and protection of retained vegetation, including all vegetation outside and adjacent to the construction footprint

Item	Issue	Response
		<ul style="list-style-type: none"> • Rehabilitation details, including identification of flora species and sources, and measures for the management and maintenance of rehabilitated areas (including duration of the implementation of such measures) • Pre-clearing inspection by a qualified ecologist for any threatened flora and fauna. <p>Sydney Metro proposes a new mitigation measure (B4) to further consider the feasibility of native seed collection, plant propagation program, translocation of juvenile and mature native plants and the reuse of vegetation (e.g., trees, wood and root balls) proposed to be removed at Clyde stabling and maintenance facility within the Flora and Fauna Management Plan. Refer to Attachment C for further information on the proposed new mitigation measure.</p>
2.2	An additional condition of approval is recommended to revise a mitigation measure to reuse any local native vegetation, where practicable, that are proposed to be cleared.	<p>The Sydney Metro Construction Environmental Management Framework provides a framework for the environmental, stakeholder and community management requirements for construction. It requires the contractor to develop and implement a Flora and Fauna Management Plan which would include procedures for clearing of vegetation and relocation of flora and fauna.</p> <p>Sydney Metro proposes a new mitigation measure (B4) to further consider the feasibility of native seed collection, plant propagation program, translocation of juvenile and mature native plants and the reuse of vegetation proposed to be removed at Clyde stabling and maintenance facility within the Flora and Fauna Management Plan.</p> <p>This is consistent with Concept condition of approval C-B10 that requires parts of Duck Creek and A'Becketts Creek to be rehabilitated and / or renaturalised with native vegetation before operation of the Sydney Metro West project.</p>

Item	Issue	Response
2.3	The submission recommends revision of a mitigation measure to ensure that any trees removed are replaced at a ratio of 2:1 and to provide specific details on the trees to be removed and the replacement trees	<p>Details on revegetation and landscaping would be identified during detailed construction planning and detailed design. This includes more specific details on the trees proposed to be removed or replaced. As many mature trees as practicable will be retained with a net increase in the number of mature trees required provided at a ratio of 2:1 (as per Concept condition of approval C-B8 and C-B9).</p> <p>Specific measures to be implemented before, during and after construction, to avoid and minimise potential biodiversity impacts, would be detailed in a Flora and Fauna Management Plan required as part of the Construction Environmental Management Framework.</p> <p>Sydney Metro would prepare a plan to describe landscaping and other urban design features at Clyde stabling and maintenance facility. Further detail would be provided in the future Sydney Metro West planning application - Rail infrastructure, stations, precincts and operations.</p>
2.4	The submission recommends a new mitigation measure be included for any replacement vegetation to use a diversity of local provenance native species from the relevant native vegetation community.	<p>Opportunities would be investigated with the relevant local council to provide plantings in proximity to the impacted areas prior to construction commencing, where reasonable and feasible (as per mitigation measure LV14). Where vegetation has been removed, replacement plantings would comprise a mix of vegetation native to the area.</p> <p>Specific measures to be implemented before, during, and after construction to avoid and minimise potential biodiversity impacts, would be detailed in a Flora and Fauna Management Plan required as part of the Construction Environmental Management Framework.</p> <p>Parts of Duck Creek and A'Becketts Creek must be rehabilitated and / or renaturalised with native vegetation before operation of the Sydney Metro West project. Further detail would be provided as part of the future Sydney Metro West planning application - Rail infrastructure, stations, precincts and operations.</p>

Attachment C – Revised environmental mitigation measures

Revised environmental mitigation measures as a result of the proposed modification were presented in Section 6 of the Modification Report. A consolidated list of all the revised environmental mitigation measures was presented in the Appendix B of the Modification Report.

Additional and revised mitigation measures are proposed in Section C-1 with the updated consolidated revised mitigation measures presented in Section C-2.

C-1 Revised environmental mitigation measures

An additional mitigation measure is proposed to further manage potential biodiversity impacts (refer to response to Issue 2.1 of Attachment B) and a new mitigation measure recommended in the Modification Report is proposed to be updated with more accurate terminology. The updated terminology allows for correct referencing of the stakeholder and the appropriate expert to provide advice on equine behaviour as a result of potential noise impacts. New text is shown in **bold** with deletions shown with a ~~strike through~~ in Table C-1.

Table C-1 Revised mitigation measures proposed as a result of the issues raised on the proposed modification

Reference	Impact / issue	Mitigation measure	Applicable location
Biodiversity			
B4	Seed collection and vegetation reuse	Consider the feasibility of native seed collection, plant propagation program, translocation of juvenile and mature native plants and the reuse of vegetation proposed to be removed at Clyde stabling and maintenance facility within the Flora and Fauna Management Plan.	CSMF
Noise and vibration			
NV20	Noise impacts to horses at the Rosehill Racecourse Stables (consultation)	Undertake consultation with the Rosehill Gardens Racecourse Australian Turf Club and an equine veterinary behaviour expert to inform construction noise and vibration objectives for this sensitive receiver. Achievement of objectives are to be demonstrated in accordance with Noise and Vibration Construction Monitoring Program required by Conditions C15 and C16 and would include reference to equine behavioural responses where feasible.	CSMF

CSMF = Clyde stabling and maintenance facility

C-2 Consolidated revised environmental mitigation measures

The consolidated revised environmental mitigation measures for the project, including the proposed modification, are presented in Table C-2. Mitigation measures provided in Table C-2 supersedes the revised mitigation measures presented in the Modification Report.

Changed and additional mitigation measures are proposed as a result of the modification to those required for the approved project and are provided in Table C-2. New text is shown in **bold** with deletions shown with a ~~strike through~~. Rows highlighted in grey include either an addition or change to an existing mitigation measure.

Table C-2 **Revised mitigation measures**

Reference	Impact / issue	Mitigation measure	Applicable location
Traffic and transport			
TT1	Changes to the network	The community would be notified in advance of proposed road and pedestrian network changes through appropriate forms of community liaison.	All
TT2	Traffic incidents	In the event of a traffic related incident, coordination would be carried out with Transport for NSW, including Transport Coordination and/or the Transport Management Centre's Operations Manager.	All
TT3	Emergency vehicles	Access to properties for emergency vehicles would be provided at all times.	All
TT4	Road safety	Vehicle access to and from construction sites would be managed to maintain pedestrian, cyclist and motorist safety. Depending on the location, this may require manual supervision, physical barriers, temporary traffic signals and modifications to existing signals or, on occasions, police presence.	All
TT5	Road safety	<p>Additional enhancements for pedestrian, cyclist and motorist safety near the construction sites would be implemented during construction. This would include measures such as:</p> <ul style="list-style-type: none"> • Assessing the suitability of construction haulage routes through sensitive land use areas with respect to road safety • Deployment of speed awareness signs in conjunction with variable message signs near construction sites to provide alerts to drivers • Providing community education and awareness about sharing the road safely with heavy vehicles • Specific construction driver training to understand route constraints, safety and environmental considerations such as sharing the road safely with other road users and limiting the use of compression braking • Requiring technology and equipment to improve vehicle safety, eliminate heavy vehicle blind spots, and monitor vehicle location and driver behaviour. 	All

Reference	Impact / issue	Mitigation measure	Applicable location
TT6	Road safety	All trucks would enter and exit construction sites in a forward direction, where feasible and reasonable.	All
TT7	Congestion	Construction site traffic would be managed to minimise movements during peak periods.	All
TT8	Congestion	Construction site traffic immediately around construction sites would be managed to minimise vehicle movements through school zones during pick up and drop off times.	WMS, PMS, BNS, FDS
TT9	Congestion	Opportunities to minimise impacts at the Alexandra Avenue/ Bridge Road intersection would be determined in consultation with Transport for NSW.	WMS
TT10	Loss of parking	Where existing parking is removed to facilitate construction activities, consultation would occur with the relevant local council to investigate opportunities to provide alternative parking facilities.	All
TT11	Loss of parking	Construction sites would be managed to minimise the number of construction workers parking on surrounding streets by: <ul style="list-style-type: none"> • Encouraging workers to use public or active transport • Encouraging ride sharing • Provision of alternative parking locations and shuttle bus transfers where feasible and reasonable. 	All
TT12	Change of bus stop locations	Any temporary closure or relocation of bus stops and kiss-and-ride facilities would be carried out in consultation with Transport for NSW including Transport Coordination (for relevant locations), the relevant local council and bus operators. Wayfinding and customer information would be provided to notify customers of relocated bus stops.	WMS, NSMS, BNS, TBS
TT13	Bus priority	Opportunities to improve bus priority along the temporary detour at Westmead metro station construction site would be investigated during detailed design.	WMS

Reference	Impact / issue	Mitigation measure	Applicable location
TT14	Active transport	Pedestrian and cyclist access would be maintained during the temporary closure of Alexandra Avenue at Westmead. Wayfinding and customer information would be provided to guide pedestrians and cyclists to alternative routes.	WMS
TT15	Impacts on active transport	Where existing cyclist facilities (e.g. bicycle parking) would be temporarily unavailable to facilitate construction activities, suitable replacement facilities would be provided for this duration.	WMS, PMS
TT16	Taxi relocation	Any relocation of taxi ranks would be carried out in consultation with Transport for NSW, the relevant local council and taxi operators. Wayfinding and customer information would be provided to notify customers of relocated taxi ranks.	SOPMS
TT17	Impacts on special events	<p>During major special events, impacts to the transport and traffic network would be reduced by (as necessary):</p> <ul style="list-style-type: none"> • Minimising the level of construction activity, and if necessary, ceasing all construction activity • Maintaining appropriate access to all areas within the event precinct • Erection of hoardings, site fencing and gates at key locations within the construction site boundary to permit pedestrian movements adjacent to the construction site and separate pedestrians from construction vehicles • Scheduling deliveries to the construction site outside of event periods. <p>For special events that require specific traffic measures, those measures would be developed in consultation with Transport for NSW, including Transport Coordination (for relevant locations) and the organisers of the event.</p>	PMS, CSMF, SOPMS
TT18	Property access	Access to existing properties and buildings would be maintained in consultation with property owners.	All
TT19	Construction vehicle impacts	Traffic control measures required at the Parramatta metro station construction site access on George Street would be determined in consultation with Transport for NSW.	PMS

Reference	Impact / issue	Mitigation measure	Applicable location
TT20	Construction vehicle impacts	Adjustments to site access arrangements and the local road network would be explored during detailed design to minimise conflicts with heavy vehicle movements.	NSMS, FDS
TT21	Construction vehicle impacts	Construction site traffic generated at the Five Dock Station construction site would be managed to avoid or minimise travel during the evening peak period.	FDS
TT22	Construction vehicle impacts	Construction site traffic generated at the Five Dock Station construction site would be managed to minimise movements during church service times at St Albans Anglican Church.	FDS
TT23	Construction vehicle impacts	Opportunities to provide vehicle access and egress directly to Parramatta Road and minimise the use of Loftus Street at the Burwood North Station construction site would be explored during detailed design.	BNS
TT24	Cumulative construction traffic impacts	Co-ordination of traffic management arrangements between major construction projects would occur in consultation with Transport for NSW including Transport Coordination.	TBS
TT25	Impacts on maritime traffic and waterway users	If barging of spoil is progressed, a Marine Traffic Management Plan would be developed by the construction contractor. The plan would outline the general operational plan for the movement and management of barging vessels in accordance with TT27, TT28 and TT29. The Plan would also outline the process for consultation in accordance with TT26.	TBS
TT26	Impacts on maritime traffic and waterway users	If barging of spoil is progressed, clubs which operate watercraft would be consulted about potential barging and potential changes to courses for watercraft such as yachts before the start of barging.	TBS

Reference	Impact / issue	Mitigation measure	Applicable location
TT27	Impacts on maritime traffic and waterway users	If barging of spoil is progressed, barging vessel movements would be scheduled to avoid times and locations of high recreational marine traffic where feasible and reasonable in consultation with Transport for NSW.	TBS
TT28	Impacts on maritime traffic and waterway users	If barging of spoil is progressed, barging vessel movements would be managed to not interfere with port operations or the navigation of seagoing ships and ferries, unless prior approval has been obtained from the Harbour Master.	TBS
TT29	Impacts on maritime traffic and waterway users	If barging of spoil is progressed, barging vessel movements would not be undertaken during special events when navigation restrictions are in place.	TBS
TT30	Construction and operation of vehicular traffic	The design of the temporary traffic arrangements at Westmead metro station construction site would consider construction traffic, alternate bus routes and bus stops, local vehicular traffic and pedestrian safety. The design of the temporary traffic arrangements would be undertaken in consultation with Transport for NSW, Schools Infrastructure, Heath Infrastructure, relevant local councils and bus operators.	WMS
TT31	Potential parking impacts as a result of partial and full road closures required to facilitate construction works	Where existing parking is removed to facilitate construction activities for The Bays Station construction site power supply route, consultation would occur with the relevant local council, local businesses, the community and schools (where appropriate) to investigate opportunities to provide alternative parking facilities.	TBS
TT32	Potential access and parking impacts as a result of partial and full road closures	Provision of assistance to carry shopping, luggage and other heavy or large goods between the alternative parking area at Ausgrid Rozelle sub-transmission substation (subject to final agreement between Sydney Metro and Ausgrid) and residences during times when access is limited.	TBS

Reference	Impact / issue	Mitigation measure	Applicable location
Noise and vibration			
NV01	Community preference for noise mitigation and management	<p>Further engagement and consultation would be carried out with:</p> <ul style="list-style-type: none"> • The affected communities to understand their preferences for mitigation and management measures. • 'Other sensitive' receivers such as schools, medical facilities or places of worship to understand periods in which they are more sensitive to impacts. <p>Based on this consultation, appropriate mitigation and management options would be considered and implemented where feasible and reasonable to minimise the impacts.</p>	All
NV02	Alternative construction methodologies	<p>Alternative construction methodologies and measures that minimise noise and vibration levels during noise intensive works would be investigated and implemented where feasible and reasonable.</p> <p>This would include consideration of:</p> <ul style="list-style-type: none"> • The use of hydraulic concrete shears in lieu of hammers/rock breakers • Sequencing works to shield noise sensitive receivers by retaining building wall elements • Locating demolition load out areas away from the nearby noise sensitive receivers • Providing respite periods for noise intensive works • Minimising structural-borne noise to adjacent buildings including separating the structural connection prior to demolition through saw-cutting and propping, using hand held splitters and pulverisers or hand demolition • Installing sound barrier screening to scaffolding facing noise sensitive neighbours • Using portable noise barriers around particularly noisy equipment, such as concrete saws • Modifying demolition works sequencing / hours to minimise impacts during peak pedestrian times and / or adjoining neighbour outdoor activity periods. 	All

Reference	Impact / issue	Mitigation measure	Applicable location
NV03	Construction noise – respite periods	Appropriate respite would be provided to affected receivers in accordance with the <i>Sydney Metro Construction Noise and Vibration Standard</i> . This would include consideration of impacts from Stage 1 utility and power supply works when determining appropriate respite periods for affected receivers. When determining appropriate respite, the need to efficiently undertake construction would be balanced against the communities' preferred noise and vibration management approach.	All
NV04	Construction noise – out of hours work	The use of noise intensive equipment at construction sites with 'moderate' and 'high' out-of-hours noise management level exceedances would be scheduled for standard construction hours, where feasible and reasonable. Where this is not feasible and reasonable, the works would be undertaken as early as possible in each work shift.	All
NV05	Night-time noise impacts	Air brake silencers would be used on heavy vehicles that access construction sites multiple times per night or over multiple nights.	All
NV06	Sleep disturbance impacts from heavy vehicles	Perimeter site hoarding would be designed with consideration of on-site heavy vehicle movements with the aim of minimising sleep disturbance impacts.	All
NV07	Noise emissions from equipment	Long term construction site support equipment and machinery would be low noise emitting and suitable for use in residential areas, where feasible and reasonable. Examples include: <ul style="list-style-type: none"> • Low noise water pumps for use in water treatment facilities • Low noise generators and compressors • Low noise air conditioner units for use of amenities buildings. 	All

Reference	Impact / issue	Mitigation measure	Applicable location
NV08	Acoustic sheds	<p>For all sites where acoustic sheds are proposed, the sheds would be designed and constructed to minimise noise emissions. This would likely include the following considerations:</p> <ul style="list-style-type: none"> • All significant noise producing equipment that would be used during the night-time would be inside the shed, where feasible and reasonable • Noise generating ventilation systems such as compressors, scrubbers, etc, would also be inside the shed and external air intake/discharge ports would be appropriately acoustically treated • The door of the acoustic shed would be kept closed during the night-time period, where feasible and reasonable. Where night-time vehicle access is required, the doors would be designed and constructed to minimise noise breakout. 	WMS, SOPMS, BNS, FDS, TBS
NV09	Ground-borne noise	Feasible and reasonable measures would be implemented to minimise ground-borne noise where exceedances are predicted. This may require implementation of less ground-borne noise and less vibration intensive alternative construction methodologies.	All
NV10	Ground-borne noise – cross passages	The proximity of cross passages to nearby receivers and the corresponding construction ground-borne noise and vibration impacts during the excavation works would be considered when determining locations. Relocation of cross passages to be further away from sensitive receivers to mitigate potential construction impacts would be considered, where feasible and reasonable.	Metro rail tunnels
NV11	Ground-borne noise – underground rockbreaking	An activity specific Construction Noise and Vibration Impact Statement (in accordance with the requirements of the Construction Noise and Vibration Standard) would be developed for rockbreaking in the tunnel and at cross passages, specifically addressing the activity where it is required between 10pm-7am.	Metro rail tunnels
NV12	Blasting Management Strategies	Blasting would be planned during hours that would cause the least disruption and disturbance to the nearest receivers. Notification protocols prior to blasting for the nearest sensitive receivers would be established.	WMS, PMS, SSF, SOPMS, NSMS, BMS, FDS, TBS

Reference	Impact / issue	Mitigation measure	Applicable location
NV13	Blasting Monitoring	Vibration and overpressure measurements would be completed at the start of any blasting activities to confirm that vibration levels are within the blasting criteria.	WMS, PMS, SSF, SOPMS, NSMS, BMS, FDS, TBS
NV14	Construction traffic noise	<p>Further assessment of construction traffic would be completed during detailed design, including consideration of the potential for exceedances of the <i>NSW Road Noise Policy</i> base criteria (where greater than 2 dB increases are predicted). The potential impacts would be managed using the following approaches, where feasible and reasonable:</p> <ul style="list-style-type: none"> • On-site spoil storage capacity would be maximised to reduce the need for truck movements during sensitive times • Vehicle movements would be redirected away from sensitive receiver areas and scheduled during less sensitive times • The speed of vehicles would be limited and the use of engine compression brakes would be avoided • Heavy vehicles would not be permitted to idle near sensitive receivers. 	All
NV15	Noise impacts to horses at Rosehill Racecourse Stables	Consultation with the owners and operators of the horse stables near the Clyde stabling and maintenance facility construction site would be carried out so that potential impacts to horses are appropriately managed.	CSMF
NV16	Construction vibration	Where vibration levels are predicted to exceed the screening criteria, a more detailed assessment of the structure (in consultation with a structural engineer) and vibration monitoring would be carried out to ensure vibration levels remain below appropriate limits for that structure. For heritage items, the more detailed assessment would specifically consider the heritage values of the structure in consultation with a heritage specialist to ensure sensitive heritage fabric is adequately monitored and managed.	All
NV17	Building condition surveys – construction vibration	Condition surveys of buildings and structures near to the tunnel and excavations would be undertaken prior to the commencement of excavation at each site, where appropriate. For heritage buildings and structures the surveys would consider the heritage values of the structure in consultation with a heritage specialist.	All

Reference	Impact / issue	Mitigation measure	Applicable location
NV18	Cumulative construction noise impacts	The likelihood of cumulative construction noise impacts would be reviewed during detailed design when detailed construction schedules are available. Co-ordination would occur between potentially interacting projects to minimise concurrent or consecutive works in the same areas, where possible. Specific mitigation strategies would be developed to manage impacts. Depending on the nature of the impact, this could involve adjustments to construction program or activities of Sydney Metro West or of other construction projects.	All
NV19	Operational road traffic noise impacts	Further assessment of operational road traffic noise mitigation would be undertaken for receivers identified as being eligible for consideration of treatment. The mitigation would likely include at-property treatment. Receivers that are identified as requiring at-receiver noise mitigation would be identified and, where possible, offered treatment prior to the start of construction works which have the potential to affect them.	WMS
NV20	Noise impacts to horses at the Rosehill Racecourse Stables (consultation)	Undertake consultation with the Australian Turf Club and an equine behaviour expert to inform construction noise and vibration objectives for this sensitive receiver. Achievement of objectives are to be demonstrated in accordance with Noise and Vibration Construction Monitoring Program required by Conditions C15 and C16 and would include reference to equine behavioural responses where feasible.	CSMF
NV21	Noise impacts to horses at the Rosehill Racecourse Stables (additional mitigation)	Consider the use of additional noise mitigation measures such as noise barriers where feasible and reasonable.	CSMF

Reference	Impact / issue	Mitigation measure	Applicable location
Non-Aboriginal heritage			
NAH1	Archival recording	<p>Archival recording and reporting of the following heritage and unlisted potential heritage items would be carried out in accordance with the NSW Heritage Office's <i>How to Prepare Archival Records of Heritage Items</i> (1998), and <i>Photographic Recording of Heritage Items Using Film or Digital Capture</i> (2006):</p> <ul style="list-style-type: none"> • Shops (and potential archaeological site) (Parramatta LEP Item No. I703) • Kia Ora (and potential archaeological site) (Parramatta LEP Item No. I716) • RTA Depot (Parramatta LEP Item No. I576) • State Abattoirs (SEPP Listing No. A) • White Bay Power Station (SHR Listing No. 01015) • Rosehill Railway Station Footbridge (SHI no. 4801762) • Rosehill Railway Station (unlisted potential heritage item). 	PMS, CSMF, SOPMS, TBS, CSMF
NAH2	Demolition	A method for the demolition of existing buildings and/or structures at specified construction sites would be developed to minimise direct and indirect impacts to adjacent and/or adjoining heritage items.	PMS, CSMF, SOPMS, TBS
NAH3	Salvage	Prior to commencement of demolition of heritage elements at White Bay Power Station within The Bays construction site, significant heritage fabric would be identified for salvage and reuse opportunities for salvaged fabric considered.	TBS
NAH4	Visual impacts	The policies of the <i>White Bay Power Station Conservation Management Plan</i> would be considered in regard to visual impacts of the Stage 1 works, particularly the acoustic shed (or other acoustic measures) and any temporary structures. Significant view lines would be retained during Stage 1 works.	TBS
NAH5	Heritage interpretation	Where heritage items, including significant archaeology are impacted by Stage 1 works, consideration would be given to their inclusion in the Heritage Interpretation Plan for future stages.	All

Reference	Impact / issue	Mitigation measure	Applicable location
NAH6	Archaeology	The archaeological research design would be implemented. Significant archaeological findings would be considered for inclusion in heritage interpretation (as per NAH5) for the project and be developed in consultation with the relevant local council.	All
NAH7	Archaeology	An Archaeological Excavation Report would be prepared by the Excavation Director and be provided to the NSW Heritage Division within two years of the completion of archaeological excavations specified in the archaeological research design(s).	All
NAH8	Archaeology	<p>In the event that State significant archaeology associated with early convict occupation is located at Parramatta metro station:</p> <ul style="list-style-type: none"> • In situ conservation would be considered. If in situ conservation is not feasible and reasonable, a strategy to mitigate impacts would be prepared in consultation with the NSW Heritage Council (or delegate) • An Archaeological Method Statement would be prepared in consultation with the NSW Heritage Council (or delegate) for management of the archaeological remains, whether for conservation or archaeological investigation and recording • An accessible publication would be prepared within two years of archaeological excavations to document the archaeological investigations • Sydney Metro would provide for the meaningful curation, display and public access of any artefacts collected. This may involve partnerships with museums, local heritage centres and/or universities. 	PMS

Reference	Impact / issue	Mitigation measure	Applicable location
NAH10	Archival recording	An assessment of significance would be prepared in consultation with the relevant local council for the following potential unlisted heritage items: <ul style="list-style-type: none"> • 220 Church Street, Parramatta • 48 Macquarie Street, Parramatta • Pine Inn at 19 Parramatta Road, Concord • 338-340 Parramatta Road, Burwood • Former warehouse shed, Glebe Island. If the assessment of significance confirms these items have local heritage value, an archival recording would be undertaken.	PMS, BNS, TBS
NAH11	Removal / Salvage	Prior to commencement of demolition of heritage elements at Rosehill Railway Station and Rosehill Railway Footbridge, significant heritage fabric would be identified for salvage and reuse opportunities for salvaged fabric considered.	CSMF
Aboriginal heritage			
AH1	Consultation	Aboriginal stakeholder consultation would be carried out in accordance with the Heritage NSW, Department of Premier and Cabinet's <i>Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010</i> (DECCW, 2010).	All
AH2	Test excavation	Archaeological test excavation (and salvage when required) would be carried out where intact natural profiles with the potential to contain significant archaeological deposits are encountered at the specified construction sites and the Parramatta power supply route. Excavations would be conducted in accordance with the methodology outlined in the Aboriginal cultural heritage assessment report.	PMS, CSMF, TBS and PSR
AH3	Aboriginal heritage interpretation	If Aboriginal archaeological remains are recovered during Stage 1, results would be incorporated into Aboriginal heritage interpretation for the Concept in consultation with registered Aboriginal parties.	All

Reference	Impact / issue	Mitigation measure	Applicable location
AH4	Unexpected finds	In the event that a potential burial site or potential human skeletal material is exposed during construction, the <i>Sydney Metro Exhumation Management Plan</i> would be implemented.	All
Property and land use			
LU1	Temporary use	Except where required for subsequent construction activities associated with future stages of the Concept, temporary use areas for construction purposes would be stabilised and appropriately rehabilitated as soon as feasible and reasonable following completion of construction. This would be carried out in consultation with the relevant landowner.	All
Landscape character and visual amenity			
LV1	Visual impacts	Where feasible and reasonable, the elements within construction sites would be located to minimise visual impacts (for example storing materials and machinery behind fencing).	All
LV2	Visual impacts	The design and maintenance of construction site hoardings would aim to minimise visual amenity and landscape character impact.	All
LV3	Visual impacts	Graffiti would be removed promptly from hoardings and any other aspects of construction sites.	All
LV4	Visual impacts	All structures (including acoustic sheds or other acoustic measures, site offices and workshop sheds) would be finished in a colour which aims to minimise their visual impact, if visible from areas external to the construction site. This finish is to be applied to all visible fixtures and fittings (including exposed downpipes).	WMS, PMS, SOPMS, SNMS, BNS, FDS, CSMF

Reference	Impact / issue	Mitigation measure	Applicable location
LV5	Lighting impacts	Lighting of construction sites would be orientated to minimise glare and light spill impacts on adjacent receivers.	All
LV6	Public art	Construction site hoardings would be designed in accordance with <i>Sydney Metro Brand Design Guidelines</i> and opportunities for public art on hoardings would be considered in high pedestrian locations.	All
LV7	Visual impacts affecting events	Works would be coordinated with the Department of Planning, Industry and Environment to manage the potential impact of construction on sporting events in other areas of Sydney Olympic Park.	SOPMS
LV8	Visual impacts affecting events	Works would be coordinated with City of Canada Bay Council to manage the potential impact of construction on sporting events at Concord Oval.	BNS
LV9	Overshadowing	Where feasible and reasonable the location and height of the acoustic shed at the Five Dock Station (if required) would be designed to minimise overshadowing of Fred Kelly Place between 10am and 3pm in mid-winter.	FDS
LV10	Activation of streetscapes	Opportunities to provide temporary activation in the vicinity of the Five Dock Station western construction site during construction would be explored in consultation with the City of Canada Bay Council.	FDS
LV11	Trees	Opportunities for the retention and protection of existing street trees and trees within the site would be identified during detailed construction planning.	All
LV12	Trees	Existing trees to be retained would be protected prior to the commencement of construction in accordance with Australian Standard AS4970 the Australian Standard for Protection of Trees on Development Sites and Adjoining Properties.	All

Reference	Impact / issue	Mitigation measure	Applicable location
LV13	Trees	Trees removed by Stage 1 would be replaced to achieve no net loss to tree numbers and/or canopy in proximity to the site as a minimum in the long term (and part of future stages of Metro West).	All
LV14	Trees	Opportunities would be investigated with the relevant local council to provide plantings in proximity to the impacted areas prior to construction commencing where feasible and reasonable.	All
LV15	Visual impacts	Investigate the opportunity for early installation of screening vegetation along the eastern boundary of the former rail corridor alongside the Rosehill Gardens Racecourse and west of the Kay Street and Unwin Street road bridge where feasible.	CSMF
LV16	Visual impacts	Provide vegetation that assists in the screening and visual softening of the road, bridge and other permanent engineered structures where feasible.	CSMF
Business impacts			
BI1	General business impacts	Small business owner engagement would be undertaken to assist small business owners adversely impacted by construction.	All
BI2	Power and utility interruptions	Planned power and utility interruptions would be scheduled to before or after typical business hours where feasible and reasonable. Prior notice would be provided to all affected business owners of the interruptions.	All
BI3	Business visibility and accessibility	Hoarding and screening impacting the visibility of business would be minimised where feasible and reasonable, without compromising public safety or the effective management of construction airborne noise. Clear pathways and signage would be implemented around construction sites to maximise visibility of retained businesses, including sufficient lighting along pedestrian footpaths during night-time where relevant.	All

Reference	Impact / issue	Mitigation measure	Applicable location
Social impacts			
S1	Impacts on social infrastructure	Consultation would be carried out with managers of social infrastructure located near construction sites about the timing and duration of construction works and management of potential impacts, with the aim of minimising potential disruptions to the use of the social infrastructure from construction activity.	WMS, PMS, CSMF, SSF, SOPMS, NSMS, BNS, FDS, TBS
S2	Loss of social infrastructure	Engagement would be carried out with Parramatta City Council to identify alternative locations for the Parramatta Artist Studios to provide opportunities for facilitating local creative and cultural activities.	PMS
S3	Social impacts	A Community Benefit Plan would be developed to guide the development of community benefit initiatives (by Principal Contractors) during construction of Stage 1 to make a positive contribution to the potentially affected community. The key objectives of the plan would include: <ul style="list-style-type: none"> • Identify opportunities to create environmental and community benefits and provide positive social outcomes • Respond to community priorities and needs in the locality of each relevant construction site. 	WMS, PMS, SOPMS, NSMS, BNS, FDS, TBS
S4	Impacts on events or festivals	In addition to mitigation measure TT17, consultation would be carried out with festival and event organisers in proximity to construction sites to mitigate potential impacts on the operation of the festival or event.	PMS, FDS
S5	Promote local cultural and identity	In addition to mitigation measure LV16, consultation would be carried out with stakeholders to identify opportunities for public art to reflect community values, culture and identity of the local community.	WMS, PMS, SOPMS, NSMS, BNS, FDS

Reference	Impact / issue	Mitigation measure	Applicable location
S6	Activation of streetscapes	In addition to mitigation measure LV10, potential temporary activation in the vicinity of the Five Dock Station western construction site would include opportunities to provide spaces and places for the community to gather and meet each other, culture and identity.	FDS
S7	Potential impacts on school infrastructure	In addition to mitigation measure S1, ongoing engagement would be undertaken with NSW Department of Education to continue to investigate feasible and reasonable mitigation measures related to construction traffic, pedestrian safety, construction noise and vibration, and air quality.	WMS, PMS, BNS, FDS
Groundwater and ground movement			
GW1	Loss of groundwater available to existing groundwater (bore supply) users	Site inspection would be carried out on private domestic supply bore GW305646 to confirm the current viability of that bore. If found to be viable and predicted to be significantly impacted by the project, make good measures would be implemented if a loss of yield were to occur.	BNS
GW2	Potential reduced baseflow to Toongabbie Creek, Domain Creek, A'Becketts Creek, Duck Creek, Haslams Creek, Powells Creek and the Mason Park wetlands, Bicentennial Park wetlands, Brickpit and Powells Creek Reserve	A review of additional geotechnical and hydrogeology data would be undertaken to confirm the geological and groundwater conditions and determine, based on these local conditions, whether predicted groundwater drawdown from Stage 1 is likely to occur in the vicinity of these creeks. Where the additional data review shows local conditions and predicted groundwater drawdown are likely to cause surface water/groundwater interaction, then additional site investigations (in accordance with GW3) would be undertaken for those creeks or surface water bodies.	WMS, CSMF, SOPMS, NSMS

Reference	Impact / issue	Mitigation measure	Applicable location
GW3	Potential reduced baseflow to Toongabbie Creek, Domain Creek, A'Becketts Creek, Duck Creek, Haslams Creek, Powells Creek and the Mason Park wetlands, Bicentennial Park wetlands, Brickpit and Powells Creek Reserve Requirements for baseline monitoring of hydrological attributes	Additional site investigations would be carried out at creeks or surface water bodies where the additional data review in GW2 shows there is a likely surface water/groundwater interaction. This would involve baseline monitoring of creek flows (streamflow gauging) prior to construction, and baseflow streamflow analysis to confirm the existing groundwater baseflow contribution to streamflow for each creek. Where a significant reduction in baseflow is predicted due to Stage 1, design responses would be implemented at station and shaft excavations to reduce potential baseflow loss.	WMS, CSMF, SOPMS, NSMS
GW4	Requirements for baseline monitoring of hydrological attributes. Migration of contaminants in groundwater and reduction in beneficial uses of aquifers	Monitoring of groundwater levels and quality at the site area would occur before, during and after construction. This would also include monitoring of potential contaminants of concern. Groundwater level data would be regularly reviewed during and after construction by a qualified hydrogeologist. Groundwater monitoring data would be provided to the NSW Environment Protection Authority and Department of Planning, Industry and Environment and the Natural Resources Access Regulator for information.	WMS, PMS, CSMF, SSF, SOPMS, NSMS, BNS, FDS, TBS

Reference	Impact / issue	Mitigation measure	Applicable location
GW5	Ground movement and settlement	<p>A detailed geotechnical and hydrogeological model for Stage 1 would be developed and progressively updated during design and construction. The detailed geotechnical and hydrogeological model would include:</p> <ul style="list-style-type: none"> • Assessment of the potential for damage to structures, services, basements and other sub-surface elements through settlement or strain • Predicted groundwater inflows, groundwater take and changes to groundwater levels including at nearby water supply works. • Where building damage risk is rated as moderate or higher (as per the CIRIA 1996 risk-based criteria), a structural assessment of the affected buildings/structures would be carried out and specific measures implemented to address the risk of damage. • Where a significant exceedance of target changes to groundwater levels are predicted at surrounding land uses and nearby water supply works, an appropriate groundwater monitoring program would be developed and implemented. The program would aim to confirm no adverse impacts on groundwater levels or to appropriately manage any impacts. Monitoring at any specific location would be subject to the status of the water supply work and agreement with the landowner. 	Where required
GW6	Ground movement and settlement	Condition surveys of buildings and structures in the vicinity of the tunnel and excavations would be carried out prior to the commencement of excavation at each site.	Where required
Soils			
SSWQ1	Acid sulfate soils	Prior to ground disturbance in areas of potential acid sulfate soil occurrence, testing would be carried out to determine the presence of actual and/or potential acid sulfate soils. If acid sulfate soils are encountered, they would be managed in accordance with the <i>Acid Sulfate Soil Manual</i> (ASSMAC, 1998).	PMS, CSMF, TBS

Reference	Impact / issue	Mitigation measure	Applicable location
SSWQ2	Soil salinity	Prior to ground disturbance in high probability salinity areas, testing would be carried out to determine the presence of saline soils. If salinity is encountered, excavated soils would not be reused or would be managed in accordance with <i>Book 4 Dryland Salinity: Productive Use of Saline Land and Water</i> (NSW DECC, 2008). Erosion controls would be implemented in accordance with the 'Blue Book' (Landcom, 2004).	All
Surface water quality			
SSWQ3	Erosion and sedimentation	Erosion and sediment measures would be implemented at all construction sites in accordance with the principles and requirements in <i>Managing Urban Stormwater – Soils and Construction, Volume 1</i> (Landcom, 2004) and <i>Volume 2D</i> (NSW Department of Environment, Climate Change and Water 2008), commonly referred to as the 'Blue Book'. Additionally, any water collected from construction sites would be appropriately treated and discharged to avoid any potential contamination or local stormwater impacts. Temporary sediment basins would be designed in accordance with <i>Managing Urban Stormwater: Soils and Construction and Managing Urban Stormwater, Volume 2D: Main Road Construction</i> (DECC, 2008).	All
SSWQ4	Working in waterways and surrounding low lying areas	Works in waterways and surrounding low lying areas would be carried out in accordance with progressive erosion and sediment control plans.	CSMF
SSWQ5	Wastewater discharge	The water treatment plants would be designed so that wastewater is treated to a level that is compliant with the ANZECC/ARMCANZ (2000), ANZG (2018) and draft ANZG (2020) default guidelines for 95 per cent species protection and 99 per cent species protection for toxicants that bioaccumulate unless other discharge criteria are agreed with relevant authorities.	All

Reference	Impact / issue	Mitigation measure	Applicable location
SSWQ6	Water quality monitoring	A surface water monitoring program would be implemented to observe any changes in surface water quality that may be attributable to Stage 1 and inform appropriate management responses. The program would be developed in consultation with the EPA and relevant Councils. The program would consider monitoring being undertaken as part of other infrastructure projects such as the WestConnex M4 East monitoring. Monitoring would occur during pre-construction and during construction at all waterways with the potential to be impacted. Monitoring sites could be located upstream and downstream of the potential discharges and would include sampling for key indicators of concern.	All
SSWQ7	Local stormwater capacity	Further design development would confirm the local stormwater system capacity to receive construction water treatment plant inflows. In the event there is a stormwater infrastructure capacity issue with existing infrastructure, mitigation measures such as storage detention to control water outflow during wet weather events would be implemented.	All
Contamination			
C1	Management of low risk contamination	For sites where potential contamination risk is moderate, high or very high, a further review of data would be performed. Where the additional data review provides sufficient information to confirm that contamination is likely to have a very low or low risk, the site would then be managed in accordance with the Soil and Water Management Plan. This would typically occur where there is minor, isolated contamination that can be readily remediated through standard construction practices such as excavation and off-site disposal.	All

Reference	Impact / issue	Mitigation measure	Applicable location
C2	Detailed Site Investigation	<p>Where data from the additional data review (mitigation measure C1) is insufficient to understand the risk of contamination, a Detailed Site Investigation would be carried out in accordance with the <i>National Environment Protection Measure</i> (2013) and other guidelines made or endorsed by the NSW EPA.</p> <p>The sites requiring a Detailed Site Investigation would be confirmed following the additional data review (mitigation measure C1), however on the basis of the Stage 1 assessment, it is anticipated that Detailed Site Investigations would be required at the specified application locations.</p>	CSMF, SSF, SOPMS, TBS
C3	Remediation	<p>Where data from the additional data review (mitigation measure C1) or the Detailed Site Investigation (mitigation measure C2) confirms that contamination would have a moderate, high or very high risk, a Remediation Action Plan would be developed for the area of the construction footprint.</p> <p>Each Remediation Action Plan would detail the remediation works required to mitigate risks from contamination throughout and following completion of construction. The Remediation Action Plan would be prepared in accordance with relevant NSW EPA guidelines and where applicable, detail remediation methodologies in accordance with Australian Standards and other relevant government guidelines and codes of practice. Remediation would be performed as an integrated component of construction and to a standard commensurate with the proposed end use of the land.</p> <p>The sites requiring Remediation Action Plans and remediation would be confirmed following the additional data review (mitigation measure C1) and Detailed Site Investigation (mitigation measure C2), however on the basis of the Stage 1 assessment, it is anticipated that Remediation Action Plans and remediation could be required at the specified application locations.</p>	CSMF, SSF, SOPMS, TBS

Reference	Impact / issue	Mitigation measure	Applicable location
C4	Site Audit Statement	<p>Where contamination is highly complex, such as significant groundwater contamination; contamination associated with vapour; contamination that requires specialised remediation techniques; or contamination that requires ongoing active management during and beyond construction, an accredited Site Auditor would review and approve the Remediation Action Plan, and would develop a Site Audit Statement and Site Audit Report upon completion of remediation.</p> <p>The sites requiring Site Audit Statements would be confirmed following the preparation of Remediation Action Plans (mitigation measure C3), however on the basis of the Stage 1 assessment, it is anticipated that Site Audit Statements would be required at the specified application locations.</p>	CSMF, SOPMS, TBS, and as applicable
C5	Residual contamination following construction	Ongoing management and monitoring measures would be documented in an appropriate form and implemented for any areas where minor, residual contamination remains following construction.	As applicable

Reference	Impact / issue	Mitigation measure	Applicable location
Hydrology and flooding			
HF1	Flooding behaviour impacts	<p>Detailed construction planning would consider flood risk at construction sites. This would include:</p> <ul style="list-style-type: none"> • Identification of measures to not worsen flood impacts on the community and on other property and infrastructure during construction up to and including the one per cent AEP flood event • Provide flood-proofing to excavations at risk of flooding or coastal inundation during construction, where feasible and reasonable, such as raised entry into shafts and/or pump-out facilities to minimise ingress of floodwaters into shafts and the dive structure • Review of site layout and staging of construction works to avoid or minimise obstruction of overland flow paths and limit the extent of flow diversion required. This includes design of site hoardings to minimise disruption to flow paths (if possible). Not worsen is defined as: <ul style="list-style-type: none"> • A maximum increase in flood levels of 50mm in a one per cent AEP flood event • A maximum increase in time of inundation on one hour in a one per cent AEP flood event • No increase in potential soil erosion and scouring from any increase in flow velocity in a one per cent AEP flood event. 	PMS, CSMF, SSF, NSMS, TBS
HF3	Flooding behaviour impacts	<p>Further design refinement at the Clyde stabling and maintenance facility construction site would occur during detailed design to mitigate the identified potential impacts including:</p> <ul style="list-style-type: none"> • The increases in flood levels of up to 0.03 metres in Duck Creek and adjacent properties in the one per cent AEP flood event • Increases in flow velocities and the potential increased risk of scour at the proposed creek crossings and in the downstream channels • The potential flooding impacts from filled features. 	CSMF
HF4	Flooding behaviour impacts	Drainage at construction sites would be designed, where feasible and reasonable, to mitigate potential alterations to local runoff conditions due to construction sites.	All

Reference	Impact / issue	Mitigation measure	Applicable location
HF5	Flooding behaviour impacts	Detailed construction planning for The Bays Station construction would aim to minimise changes to existing levels in relation to potential impacts on flood behaviour, along the north-western side of site adjacent to low-lying property, to minimise reduction in floodplain storage.	TBS
HF6	Flood protection	Consultation would occur with the proponent of the Camellia Town Centre redevelopment to understand potential flood impacts from the redevelopment on Stage 1 and to identify any additional flood protection (if required).	PMS
HF7	Flooding emergency management	Construction planning regarding flooding matters would be carried out in consultation with the NSW State Emergency Service and the relevant local council.	PMS, CSMF, TBS
HF8	Impacts to flood mitigation works	Detailed construction planning for The Bays Station construction site would aim to avoid conflicts with the potential construction of flood mitigation works in Robert Street, Rozelle in consultation with Inner West Council.	TBS
Biodiversity			
B1	Impacts to fish passage	During construction, sufficient flow and fish passage would be maintained similar to current conditions during in-stream works where feasible and reasonable.	CSMF
B2	Impacts of proposed creek crossings	<p>The A'Becketts Creek and Duck Creek crossings would be designed to:</p> <ul style="list-style-type: none"> • Provide sufficient fish passage in accordance with <i>Policy and guidelines for fish habitat conservation and management Update 2013</i> (DPI (Fisheries NSW) 2013) • Incorporate suitable scour protection • Avoid worsening existing flow velocities downstream from the crossing locations • Incorporate a vegetated riparian zone within the realigned open channel sections where feasible and reasonable. 	CSMF

Reference	Impact / issue	Mitigation measure	Applicable location
B3	Impacts to groundwater dependent ecosystems	Additional investigations and assessment would be completed to confirm the potential for impacts to groundwater dependant ecosystems due to groundwater drawdown, and to identify any required mitigation through design.	WMS, PMS, CSMF, NSMS, BNS, FDS
B4	Seed collection or vegetation reuse	Consider the feasibility of native seed collection, plant propagation program, translocation of juvenile and mature native plants and the reuse of vegetation proposed to be removed at Clyde stabling and maintenance facility within the Flora and Fauna Management Plan.	CSMF
Air quality			
AQ1	Dust impacts	The following best-practice dust management measures would be implemented during all construction works: <ul style="list-style-type: none"> • Regularly wet-down exposed and disturbed areas including stockpiles, especially during dry weather • Adjust the intensity of activities based on measured and observed dust levels and weather forecasts • Minimise the amount of materials stockpiled and position stockpiles away from surrounding receivers • Regularly inspect dust emissions and apply additional controls as required • Consider all relevant measures listed in the UK IAQM corresponding to the highest level of risk determined around each Stage 1 construction site. 	All
AQ2	Exhaust emissions from the combustion of fossil fuels	Plant and equipment would be maintained in a proper and efficient manner. Visual inspections of emissions from plant would be carried out as part of preacceptance checks.	All

Reference	Impact / issue	Mitigation measure	Applicable location
AQ3	Odour emissions	<p>The following best-practice odour management measures would be implemented during relevant construction works:</p> <ul style="list-style-type: none"> • The extent of opened and disturbed contaminated soil at any given time would be minimised • Temporary coverings or odour suppressing agents would be applied to excavated areas where appropriate • Regular monitoring would be conducted during excavation to verify that no offensive odours are being detected beyond the site boundary. 	All
Spoil, waste management and resource use			
WR1	Compliance with legislative and policy requirements	All waste would be assessed, classified, managed, transported and disposed of in accordance with the <i>Waste Classification Guidelines</i> and the <i>Protection of the Environment Operations (Waste) Regulation 2014</i> .	All
WR2	Disposal of hazardous materials	A hazardous material survey would be completed for those buildings and structures suspected of containing hazardous or special waste materials (particularly asbestos) prior to their demolition. If hazardous waste or special waste (e.g. asbestos) is encountered, it would be handled and managed in accordance with relevant legislation, codes of practice and Australian standards.	All
WR3	Waste minimisation	Construction waste would be minimised by accurately calculating materials brought to the site and limiting materials packaging.	All
WR4	Reuse and recycling	Waste streams would be segregated to avoid cross-contamination of materials and maximise reuse and recycling opportunities.	All
WR5	Reuse on Sydney Metro West sites	A materials tracking system would be implemented for material transferred between Sydney Metro West sites and to offsite locations such as licensed waste management facilities.	All

Reference	Impact / issue	Mitigation measure	Applicable location
Hazards			
HA1	Risks to people, property and the environment associated with transport and storage of explosives	The method for delivery of explosives would be developed prior to the commencement of blasting (if proposed) in consultation with the Department of Planning, Industry and Environment and be timed to avoid the need for on-site storage.	All
HA2	Impacts on underground utilities	Dial before you dig searches and non-destructive digging would be carried out to identify the presence of underground utilities.	All
HA3	Impacts on underground utilities	Ongoing consultation would be carried out with utility providers for high pressure gas or petroleum pipelines to identify appropriate construction methodologies to be implemented. Any interaction with high pressure gas or petroleum pipelines would comply with the relevant standards, including AS 2885 Pipelines – Gas and Liquid Petroleum.	All
Sustainability and climate change			
SCC1	Sustainability implementation	Sustainability initiatives would be incorporated into the detailed design and construction to support the achievement of the Sydney Metro West sustainability objectives.	All
SCC2	Sustainability implementation	Best practice level of performance would be achieved using market leading sustainability rating tools during design and construction.	All
SCC3	Climate change risks	Climate change risk treatments would be confirmed and incorporated into the detailed design.	All

Reference	Impact / issue	Mitigation measure	Applicable location
SCC4	Greenhouse gas emissions	An iterative process of greenhouse gas assessments and design refinements would be carried out during detailed design and construction to identify opportunities to minimise greenhouse gas emissions. Performance would be measured in terms of a percentage reduction in greenhouse gas emissions from a baseline inventory calculated at the detailed design stage.	All
SCC5	Greenhouse gas emissions	25 per cent of the greenhouse gas emissions associated with consumption of electricity during construction would be offset.	All

Reference	Impact / issue	Mitigation measure	Applicable location
Cumulative impacts			
CI1	Occurrence of cumulative impacts	<p>Co-ordination and consultation with the following stakeholders would occur where required to manage the interface of projects under construction at the same time:</p> <ul style="list-style-type: none"> • Transport for NSW including Transport Coordination • Department of Planning, Industry and Environment • Sydney Trains • NSW Trains • Sydney Buses • Sydney Water • Port Authority of NSW • Sydney Motorways Corporation • Emergency service providers • Utility providers • Construction contractors. <p>Co-ordination and consultation with these stakeholders would include:</p> <ul style="list-style-type: none"> • Provision of regular updates to the detailed construction program, construction sites and haul routes • Identification of key potential conflict points with other construction projects • Developing mitigation strategies in order to manage conflicts. Depending on the nature of the conflict, this could involve: <ul style="list-style-type: none"> - Adjustments to the Sydney Metro construction program, work activities or haul routes; or adjustments to the program, activities or haul routes of other construction projects - Co-ordination of traffic management arrangements between projects. 	All

