



WestConnex M4-M5 Link

Rozelle Interchange - Modification: Iron Cove ventilation underground

Modification report

Appendix A

Secretary's environmental assessment requirements



Appendix A

Secretary's environmental assessment requirements

The Planning Secretary's Environmental Assessment Requirements (SEARs) for the project were issued in May 2017. DPIE advised that this modification report should address the SEARs issued used in May 2017 as relevant.

Table 11-1 sets out the relevant assessment requirements (SEARs) for the proposed modification (the subject of this report) and identifies where they have been addressed in this EIS.

Table 11-1 Key assessment requirements for the proposed modification.

Environmental issue	Relevant SEAR(s)	Where addressed
Environmental Impact Assessment Process	The assessment process must discuss why it is feasible for the electrical substation, and any other structures that remain at the surface, to be undergrounded with the ventilation facility	section 2
Transport and traffic	<p>The assessment must detail the additional construction traffic (both light and heavy vehicles) that would be generated by the proposal, including the estimated number of spoil haulage movements associated with the construction of the underground cavern and access tunnel, and the proposed access and egress arrangements. The impact of the additional traffic movements on mid-block road capacity and intersection performance must be quantitatively assessed. The traffic assessment must compare the proposed number of construction light and heavy vehicle movements associated with the modification with the original proposed and any changes to access and egress movements to the site</p> <p>The traffic assessment must also describe how operational maintenance vehicles would access the ventilation facility</p>	section 7.2

Environmental issue	Relevant SEAR(s)	Where addressed
Noise and Vibration – Amenity and Structural	<p>The construction and operational noise and vibration assessments must be quantitative assessments. The assessments must identify any sensitive receivers not previously affected by the modified activities and those where the level of impact is predicted to increase The assessment of sleep disturbance must assess the predicted number of awakening events</p> <p>If blasting is proposed, the assessment must demonstrate that blast impacts are capable of complying with current guidelines</p> <p>Assessment of construction and operational noise and vibration impacts including sleep disturbance associated with the proposed modification. This assessment must be in accordance with relevant NSW noise and vibration guidelines and potential noise and vibration mitigation measures should be identified</p> <p>The assessment of operational noise should focus on the relocation and use of the proposed modified ventilation facility and compare the results of this assessment to the existing baseline and approved project</p> <p>The assessment of construction noise and vibration impacts must address:</p> <ul style="list-style-type: none"> a. the nature of construction activities (including transport, tonal or impulsive noise-generating works as relevant); b. the likely intensity and duration of potential noise and vibration impacts (both air and ground-borne); c. confirmation of works occurring within and outside standard construction hours, including estimated duration and timing, predicted levels, exceedances and number of potentially affected receivers and justification for the activity in terms of the Interim Construction Noise Guideline (DECCW, 2009); d. figures consistent with the EIS illustrating the existing, previously assessed and predicted noise levels related to the modification; and e. a cumulative noise and vibration assessment of other M4-M5 Link works proposed at Iron Cove where potential impacts are likely to differ from those that were previously assessed under the EIS for SSI 7485. <p>Assess potential construction and operation noise and vibration impacts in accordance with relevant NSW noise and vibration guidelines. The assessment must include consideration of impacts to the structural integrity and heritage significance of items (including Aboriginal places and items of environmental heritage)</p>	section 7.4
Visual Amenity	<p>The assessment must be supported by relevant perspective photographs/drawings/and/or artists impressions</p> <p>Qualitatively assess visual impacts associated with the modified ventilation facility when viewed from nearby sensitive receptors and public vantage points. This assessment should compare the proposed modification to the approved ventilation facility and any other associated infrastructure as described by SSI 7485</p>	section 7.7

Environmental issue	Relevant SEAR(s)	Where addressed
Urban Design	<p>The assessment should provide a consideration of the urban design impacts in retaining the substation at surface level</p> <p>Identify the urban design and landscaping aspects of the proposed modification and its components including but not limited to deletion of the surface operational buildings and ancillary facilities associated with the Motorway Operation Centre (MOC4) and realignment of pedestrian path and improvement to open space along the southern extent of Victoria Road</p> <p>Where relevant, consider any change from that assessed under the EIS that result in any changed residual land treatments</p> <p>Where relevant, consider any additional opportunities to that addressed under the EIS to utilise surplus or residual land</p>	section 7.7
Socio-economic, Land Use and Property	<p>The assessment must quantitatively assess all new and additional impacts on property arising from the proposed modification. The assessment must address the potential for property damage arising from settlement due to tunnelling, including groundwater drawdown during construction and operation. It must identify any areas not previously identified as potentially being impacted by settlement and where the potential for settlement is increased. The predicted degree of settlement must be provided along with the proposed mitigation measures</p> <p>Details must be provided on the proposed end use of the land(s) no longer required for the construction of the ventilation complex and any other above ground facilities that would be underground</p> <p>Assess the potential impacts, by comparison to that assessed in the EIS, from the construction and operation on potentially affected property, businesses, and recreational users, including property acquisitions/adjustments, access amenity, and relevant statutory rights resulting from the proposed modification</p> <p>Assess potential impacts, by comparison to that assessed in the EIS, on utilities (including communications, electricity, gas, and water and sewerage) and the relocation of these utilities</p>	section 7.5

Environmental issue	Relevant SEAR(s)	Where addressed
Water	<p>The assessment must detail the estimated additional volumes of groundwater that would be captured and discharged as a result of the excavation of the underground facility and associated access tunnel including: groundwater drawdown levels; potential impact of the additional groundwater drawdown on groundwater resources; method of treating and discharging the groundwater; impact of the groundwater discharges on any receiving stormwater infrastructure and the receiving environment (in terms of quality and quantity)</p> <p>Qualitatively assess, by comparison to the EIS, the impact of the construction and operation of the proposed modification of the ventilation facility (both built elements and discharges) on surface and groundwater hydrology in accordance with the current guidelines, including impacts from permanent and temporary interruption of groundwater flow, including the extent of drawdown, barriers to flows, implications for groundwater dependent surface flows, ecosystems and species, groundwater users and the potential for settlement</p> <p>Assess and minimise the effects of proposed stormwater and wastewater management during construction and operation on natural hydrological attributes (such as volumes, flow rates, management methods and re-use options) and on the conveyance capacity of existing stormwater systems where discharges are proposed through such systems</p>	<p>section 7.5 section 0</p>
Utilities	The assessment must describe any additional utility works that may be undertaken, including their location, timing and duration, and details of any proposed out-of-hours works	section 5.3.4
Heritage	Assess the potential impact of the proposed modification on State Heritage Listed and locally listed heritage items as relevant	section 7.1
Soils	Assess the potential impact of disturbance of contaminated groundwater associated with the proposed modification. Tunnels associated with the proposed modification should be carefully designed so as to not exacerbate mobilisation of contaminated groundwater and/or prevent contaminated groundwater flow	section 7.1 and section 7.5
Waste	<p>Qualitatively assess, by comparison to the EIS, predicted waste generated from the proposed modification during construction and operation, including where relevant:</p> <ol style="list-style-type: none"> estimates/details of the quantity of each classification of waste to be generated during the construction of the proposed modification, including spoil balance management of waste including estimated location and volume of stockpiles 	section 7.9