

Contents

1	Introduction	1
1.1	Purpose of this report	1
1.2	Overview of WestConnex	1
1.3	M4-M5 Link project	3
1.4	Modifications to WestConnex M4-M5 Link	5
1.5	Relevant approved activities.....	5
1.6	The proposed modification	5
1.7	Report structure	7
2	Assessment process	8
2.1	Approval framework.....	8
2.2	Environmental planning instruments	9
2.3	Other NSW legislation	9
2.4	Commonwealth legislation.....	9
3	Approved project.....	10
3.1	Overview	10
3.2	Iron Cove	10
3.3	Ventilation tunnels	14
3.4	Rozelle tunnel and civil site (C5)	14
4	Alternatives considered and identification of the preferred option	16
4.1	Options considered.....	16
4.2	Identification of the preferred option	17
5	Proposed modification	18
5.1	Overview of the proposed modification	18
5.2	Details of the proposed modification	18
5.3	Changes to construction methodology	25
5.4	Construction program	28
5.5	Construction workforce	29
5.6	Construction hours and justification for 24-hour tunnelling	29
5.7	Operation of the proposed modification	29
5.8	Conditions of approval.....	30
6	Consultation.....	31
6.1	Introduction	31
6.2	Consultation during the preparation of the proposed modification.....	31
6.3	Consultation during the exhibition of proposed modification	34
6.4	Consultation during and following DPIE assessment.....	34
6.5	Ongoing consultation	35
7	Environmental assessment	36
7.1	Environmental scoping	36
7.2	Traffic and transport	38
7.3	Air quality	41
7.4	Noise and vibration	42
7.5	Potential groundwater drawdown and surface settlement	49
7.6	Socio-economic, land use and property	53
7.7	Urban design and visual amenity	54
7.8	Water management	62
7.9	Resource use and waste minimisation.....	63
7.10	Hazard and risk.....	64

8	Conditions of Approval	65
8.1	Conditions to be amended or removed	65
9	Environmental management measures.....	66
10	Justification and conclusions	67
10.1	Need for the proposed modification	67
10.2	Environmental assessment	67
10.3	Planning Approval and environmental management measures.....	70
10.4	Community and stakeholder consultation	70
11	References	71

Appendices

Appendix A: Secretary’s environmental assessment requirements

Appendix B: Construction traffic and transport assessment

Appendix C: Operational air quality

Appendix D: Noise and vibration assessment

Appendix E: Groundwater drawdown and potential surface settlement

Appendix F: Urban design and visual amenity

Figures

Figure 1-1	Overview of WestConnex and related projects (EIS figure 1-4).....	2
Figure 1-2	Overview of the M4-M5 Link project as described in the EIS	4
Figure 3-1	Indicative MOC4 (EIS Figure 5-47).....	11
Figure 3-2	Indicative Overshadowing diagram for the MOC4 (EIS Appendix M)	12
Figure 3-3	Indicative underground substation layout (EIS Figure 5-53).....	14
Figure 5-1	Alignment of proposed new ventilation tunnel and caverns at Iron Cove	19
Figure 5-2	Cross-section showing indicative arrangement of ventilation tunnel connection to ventilation outlet	20
Figure 5-3	Indicative depth from ground level to crown of ventilation tunnel and caverns	22
Figure 5-4	Indicative location of proposed above-ground structures at Iron Cove	24
Figure 5-5	Indicative Iron Cove cut and cover tunnel support site layout	26
Figure 5-6	Indicative Iron Cove cut and cover tunnel support site (ground surface removed from the image to provide visibility underground). Aspect from Victoria Rd looking towards Callan St.....	27
Figure 7-1	Haulage routes via the Iron Cove Civil Site (C8)	39
Figure 7-2	Maximum predicted GBN levels (ventilation tunnel and caverns in light blue). Properties within dashed pink area will also receive GBN from Iron Cove link tunnel excavation.	44
Figure 7-3	Iron Cove ventilation tunnel geological cross-section. Orange represents the top of the tunnel and blue represents the base of the tunnel.	50
Figure 7-4	Preliminary settlement analysis of proposed modification (note this is subject to design development)	52
Figure 7-5	Artist's impression at 10 years of operation, looking east along Toelle Street toward the proposed ancillary facilities. Note: Operation infrastructure subject to detailed design. This modification does not alter the ventilation outlet from the approved project. Exterior design of the ventilation outlet is subject to the Urban Design and Landscape Plan. Pedestrian traffic lights on Victoria Rd will be included in detailed design.	56

Figure 7-6 3D Artist's impression at 10 years of operation looking south along Victoria Road toward the proposed ancillary facilities. Note: Pedestrian traffic lights will be included in detailed design.....	56
Figure 7-7 Typical cross-section AA location of proposed modification	57
Figure 7-8 Iron Cove Link - Typical section AA.....	58
Figure 7-9 Indicative Overshadowing diagram 9am 21 June. Note: No change is proposed to the ventilation outlet in the approved project.	60
Figure 7-10 Indicative Overshadowing diagram 3pm 21 June. Note: No change is proposed to the ventilation outlet in the approved project.	61

Tables

Table 3-1 Iron Cove civil site (C8) indicative construction program (extract from EIS Table 6-16).....	14
Table 5-1 Indicative construction program for the proposed modification.....	29
Table 7-1 Scoping summary of the environmental assessment of the proposed modification	36
Table 7-2 Peak Hour Construction Traffic Volumes at the Iron Cove Civil Works Site (C8) for Approved Project and Proposed Modification.....	40
Table 7-3 Worst predicted ground-borne noise levels during excavation of the proposed ventilation tunnel and caverns.....	44
Table 7-4 EIS and JHCPB comparison – number of receivers above EIS NMLs for ICL cut and cover	45
Table 7-5 EIS and contractor comparison – number of receivers above EIS NMLs for ICL-14 (daytime)	46
Table 7-6 Operational noise levels at the closet residential receivers – Iron Cove fixed facilities	47
Table 7-7 Comparison of preliminary settlement analysis against the screening criteria in MCoA E103	51
Table 8-1 Conditions of approval to be amended or removed	65
Table 11-1 Key assessment requirements for the proposed modification.	0