



INNER WEST COUNCIL

16/6116

16 October 2017

Kane Winwood
Acting Director Transport Assessments
Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Dear Mr Winwood

**WestConnex Stage 3 (M4-M5 Link)
Environmental Impact Statement (EIS)**

In response to the public exhibition of the above EIS, please find attached:

- **Council's submission** on the EIS;
- **Attachment 1:** Assessment of the EIS by Beca Australia for Council;
- **Attachment 2:** Items relevant to investigation of WestConnex Stage 3 'dive-site' options;
- **Attachment 3:** Key community submissions and notes from community & staff meetings on the EIS; and
- **Attachment 4:** Maps showing Council's initial identification of streets that may have additional or reduced traffic from WestConnex.

Please direct any queries to Kendall Banfield, Manager WestConnex Unit, on 9335 2179.

Yours sincerely

Gill Dawson
Acting Group Manager Strategic Planning

Encl.

Customer Service Centres

Ashfield | P (02) 9716 1800 | E info@ashfield.nsw.gov.au | 260 Liverpool Road Ashfield NSW 2131

Leichhardt | P (02) 9367 9222 | E leichhardt@lmc.nsw.gov.au | 7-15 Wetherill Street Leichhardt NSW 2040

Petersham | P (02) 9335 2222 | E council@marrickville.nsw.gov.au | 2-14 Fisher Street Petersham NSW 2049



INNER WEST COUNCIL

INNER WEST COUNCIL SUBMISSION TO THE DEPARTMENT OF PLANNING & ENVIRONMENT

ON THE WESTCONNEX STAGE 3 (M4-M5 LINK) ENVIRONMENTAL IMPACT STATEMENT (EIS)

16 OCTOBER 2017

CONTENTS

ATTACHMENTS.....	1
SUMMARY.....	2
PART 1: ASSESSMENT PROCESS & CONSULTATION	8
PART 2: JUSTIFICATION FOR PROJECT	12
PART 3: AIR QUALITY	19
PART 4: CONSTRUCTION WORK.....	28
PART 5: OPERATIONAL TRAFFIC & TRANSPORT	47
PART 6: NOISE & VIBRATION	56
PART 7: HUMAN HEALTH RISK	57
PART 8: LAND USE & PROPERTY	61
PART 9: SOCIAL & ECONOMIC IMPACTS.....	64
PART 10: URBAN DESIGN & VISUAL AMENITY	69
PART 11: SOIL QUALITY, WATER QUALITY & CONTAMINATION	72
PART 12: FLOODING, DRAINAGE & GROUNDWATER.....	75
PART 13: BIODIVERSITY & HERITAGE	78
PART 14: ENVIRONMENTAL, HAZARD & RISK FACTORS.....	81
PART 15: SUSTAINABILITY & CLIMATE CHANGE.....	82
RECOMMENDATIONS.....	83
REFERENCES.....	94

ATTACHMENTS

Attachment 1: Beca Australia Assessment of WestConnex Stage 3 EIS for Inner West Council, October 2017

Attachment 2: Items relevant to investigation of WestConnex Stage 3 dive-site options: Holt, James *Independent Engineer's Report on Mid-Tunnel Construction Dive-Site Options* for Inner West Council, February 2017; Letter from Inner West Council to Sydney Motorway Corporation (SMC) regarding the Rozelle Rail Yards (RRY) (western end) mid-tunnel construction dive-site option, May 2017; and Response from SMC to Council regarding the RRY (western end) mid-tunnel construction dive-site option, August 2017

Attachment 3: Key Community submissions received by Council and notes from community & staff meetings in relation to the WestConnex Stage 3 EIS

Attachment 4: Maps showing Council's initial identification of streets that may have additional or reduced traffic from WestConnex

Customer Service Centres

Ashfield | P (02) 9716 1800 | E info@ashfield.nsw.gov.au | 260 Liverpool Road Ashfield NSW 2131

Leichhardt | P (02) 9367 9222 | E leichhardt@lmc.nsw.gov.au | 7-15 Wetherill Street Leichhardt NSW 2040

Petersham | P (02) 9335 2222 | E council@marrickville.nsw.gov.au | 2-14 Fisher Street Petersham NSW 2049

SUMMARY

Since its inception in 2014 each of the three Councils now forming Sydney's Inner West Council have strongly opposed WestConnex on environmental, public health, traffic, transport, construction impacts and its economic basis, as well as its general lack of adherence to good planning practice.

The opinions outlined in this submission indicate that the WestConnex Stage 3 (M4-M5 Link) Environmental Impact Statement (EIS) does not alter Council's opposition to the project. Council's analysis of the EIS indicates the following concerns, noting there are many other elements of the project and EIS that require further assessment before a truly accurate assessment of the project's impacts can be considered:

- Limited consideration of the broader environmental implications of the project;
- Inadequate analysis of genuine alternatives to the project (including consideration of hybrid solutions which could include public transport and location specific road improvements complemented by demand management initiatives);
- The travel-time benefits achieved by WestConnex are negligible, with analysis of network-wide distance travelled against time taken indicating that in 2033 with the total "cumulative" project operational, the estimated average vehicle speed will be 26.4kph. This is only 1.1kph faster than the "do minimum" scenario and approximately 7.4kph slower than today's network-wide average;
- There has been no serious assessment of public transport and demand-management initiatives that could achieve similar congestion reductions and so equivalent travel time savings through reduced congestion;
- There has been no analysis of the impact of the proposal on the long term viability of Sydney's public transport and active transport network;
- There is not sufficient detail in the EIS to allow for a complete assessment of the project, with detail of a number of core issues deferred to later planning stages, such as the Preferred Infrastructure Report and construction management plans;
- There is no consideration or response in the EIS to the multitude of process inadequacies already experienced from construction of Stages 1 and 2 of WestConnex;
- The EIS's traffic and air quality modelling are flawed and based on unrealistic assumptions – for example, recent diversions of traffic away from the newly-tolled widened M4 raises concerns about the EIS's toll sensitivity analysis; and
- There is no consideration in the EIS of measures to minimise traffic impacts associated with the opening of Stages 1 and 2 should Stage 3 not proceed.

This submission has been drafted by Council staff, with comments integrated from Inner West Councillors, the community and other stakeholders at various meetings throughout 2016-17 and during the EIS exhibition period. Drafting of the submission has been assisted by planning/engineering firm Beca Australia, who was commissioned by Council to undertake a technical review of all topics covered by the EIS – at **Attachment 1**. Council requests the Department of Planning & Environment (DP&E) to assess all matters raised in the Council staff submission and in Beca's assessment.

Other background information is attached, as are key community submissions received by Council and notes from August 2017 staff workshops and an October 2017 community meeting on the Stage 3 EIS.

Meetings at which the Stage 3 EIS (M4-M5 Link EIS) was discussed include a meeting of the State WestConnex Community Reference Group on 22 August 2017, a briefing by SMC for staff on 14 September 2017, a briefing by SMC for Councillors on 19 September 2017, an Extraordinary Meetings of Council on 21 September 2017 and 3 October 2017, a public meeting on 4 October 2017, a meeting of Council's WestConnex Community Liaison Forum (WCLF) on 5 October 2017, a briefing of Councillors by staff on 5 October and an Ordinary Meeting of Council on 12 October 2017.

At the 21 September 2017 Extraordinary Meeting, the newly-elected Council discussed a number of matters, and the following resolution is relevant to this submission:

"That the Mayor and General Manager immediately write to the Minister for Planning and request that a further 30 days be added to the exhibition period for the WestConnex Stage 3 M4-M5 Link EIS."

At the 3 October 2017 Extraordinary Meeting, Council discussed a number of WestConnex matters, and resolved (among other things) as follows:

"Inner West Council formally adopts a position of continued opposition in the strongest terms to the WestConnex project, both approved and future stages including stage 3, consistent with the opposition of the former councils of Ashfield, Leichhardt and Marrickville."

That Council "... writes to the Minister for WestConnex:

- a. Urgently seeking a meeting to discuss the ongoing and unacceptable impacts on residents in Haberfield and St Peters from utility companies associated with the project conducting night works and the ongoing failure of vehicle operators to adhere to the project's conditions of consent and traffic management plans;*
- b. To demand assumptions and scenarios underlying the traffic modelling, contained in the Stage 3 EIS, not just model output;*
- c. Seeking full funding from the NSW Government of all traffic calming and amelioration expenditure required as a result of WestConnex;*
- d. Seeking the delivery of all legacy lands to Council or an appropriate body for public use at the earliest possible time;*
- e. Seek a guaranteed funding commitment contained in the Stage 3 EIS conditions of consent for SMC to fund improvements to residual lands in accordance with council's requirements; and*
- f. Requesting that the Preferred Infrastructure Report for Stage 3 be publicly released prior to any assessment or approval."*

At the 12 October 2017 Ordinary Meeting, Council considered a draft submission on the Stage 3 EIS and resolved as follows:

"That Council:

- 1. Receive and note the Draft Submission;*
- 2. Note that the final submission will be submitted by the 16 October 2017 deadline; and*
- 3. Receive a further report with a copy of the final submission at the Ordinary Council Meeting on 24 October;*
- 4. Ensure all community action groups have been consulted, and invited to attach their own submissions to Council's, prior to final submission of the EIS response on 24 October 2017;*

5. *That Council purchase up to 1000 corflutes to be made available to residents who would like to display these. The corflutes will express opposition to WestConnex with the words being determined by WestConnex campaign groups and Council;*
6. *That there be a fuller argument against the compulsory acquisition of Buruwan Park developed in the submission including impact on Light rail, cycleways impact and use of the park by locals; and*
7. *That Council commits to writing to all members of State Parliament seeking their support for a full inquiry into WestConnex and that the EIS for Stage 3 not proceed until the inquiry is concluded.”*

Issues raised in Council's 4 August 2017 submission on the Stage 3 Concept Design have been carried forward into this EIS submission, with detail added on the basis of the additional information provided by the EIS. This is appropriate as the key issues raised by the former document are essentially the same as those raised by the latter.

Content issues raised by the EIS are expressed in this submission at both a strategic level and a more detailed level that considers local impacts. As is apparent from recent resolutions quoted above, Council continues to strongly oppose WestConnex. Council would prefer that no part of the project had been planned or constructed, and its substantial funding had been devoted to public transport and other demand-management (traffic reduction) options.

Council strongly believes that Stage 3 should not be approved and an independent inquiry should be held to identify, investigate and resolve the many flaws in all stages of the project – whether in construction or planning. Should, after such an inquiry, Stages 1 and 2 continue to be developed, extensive ameliorating measures should be implemented in consultation with affected Councils and local communities, to minimise any impacts that might occur as a consequence of Stages 1 and 2 proceeding in the absence of Stage 3.

Foremost in this submission is Council's request to the NSW Premier and relevant ministers that that assessment of Stage 3 be suspended until an inquiry into the entire WestConnex project has been held, with any deficiencies in the current EIS addressed and the Preferred Infrastructure Report publicly exhibited.

The inquiry's main task would be to investigate the business case for the project to identify flaws in the process of evaluating the project at the highest level, and to determine whether Stage 3 (as currently designed) represents the best outcome compared with a range of other transport options. The inquiry's examination of alternatives should be comprehensive, and should consider alternative proposals of the City of Sydney, Inner West Council and other hybrid proposals which include significant public transport enhancement, supported by location-specific road improvements and demand-management initiatives.

The inquiry would also be tasked to investigate the full range of local construction impact issues that have been encountered to date from Stages 1 and 2 and predicted local operational traffic impacts. This would result in a number of immediate improvements to the design details and construction practices of Stages 1 and 2 to reduce the currently unacceptable impacts being suffered by the Haberfield/Ashfield and St Peters communities. This would require a number of retrospective actions, including modifications to Stage 1 and 2 conditions of approval and environmental licenses.

Beca's assessment of local issues raised by the Stage 3 EIS at **Attachment 1** includes a number of conclusions about flaws in the EIS. Critical among these flaws are the assumptions that have guided the EIS's traffic and air quality modelling and lack of

information about the precise nature of construction impacts. This is further evidence of the need for an inquiry.

Discussion of process issues raised by the EIS are included within Part 1 *Assessment process and consultation*. In summary, these issues are:

- The nine working days between the close of exhibition of the Concept Design and commencement of exhibition of the EIS could not have possibly allowed the issues raised by the former document to influence the latter.
- The 60-day EIS exhibition period is not adequate to allow for proper consideration of issues by Councils and the community. Consequently, several Councils have sought an extension of time, but this has not been granted.
- Lack of detail and clarity in the EIS on key issues. The EIS states that further detail and a final design will be included in a Preferred Infrastructure Report drafted by the proponent after the EIS has been determined. It is thus imperative that the Preferred Infrastructure Report is placed on public exhibition prior to any determination to ensure Council and the community can comment on the additional assessments sought and final project designs.

Discussion of strategic issues raised by the EIS are within Part 2: *Justification for project*. In summary, Council believes no part of WestConnex, including Stage 3, is justified on economic or environmental grounds. It represents a poor transport option compared to public transport and demand management alternatives, is not consistent with key NSW Government planning and transport policies and does not meet some of its own original aims. Costs have been underestimated and benefits overestimated. Of particular concern to Council is lack of accounting for the significant health costs imposed on local communities and the equity impacts of tolls.

Stage 3 should not be approved because it lacks justification and its EIS is seriously flawed. A moratorium should be placed on all work associated with WestConnex until an inquiry is held to investigate and resolve the many flaws in all of its stages, evidenced by the serious negative impacts that have arisen from Stages 1 and 2 (under construction) and inadequate EIS for Stage 3. This inquiry should also address the impacts of proceeding with Stage 1 and 2, without Stage 3 - as a consequence, consideration should be given to halting work on Stages 1 and 2 to avoid these impacts.

Discussion of local construction and operational issues makes up the major part of this submission. Most of this discussion centres on the key local issues of air quality, construction work, and traffic & transport – Parts 3 to 5 of this submission.

The recommendations from the assessment of local issues are designed to ensure that, should Stage 3 proceed in some form, appropriate conditions of approval and best-practice management practices would be implemented to protect the Inner West community against the multitude of negative local impacts. It would also ensure that all opportunities for positive outcomes are seized wherever they arise.

Importantly, should any form of Stage 3 proceed, Council is also keen to ensure that lessons from Stages 1 and 2 are learned so that conditions of approval are strengthened, construction practices improved and incidences of non-compliance reduced. It is imperative that current poor practices are not repeated, and that residents affected by Stage 3 are not subject to the same intolerable impacts as those affected by Stages 1 and 2.

Further, should Stage 3 not proceed, conditions of approval and environmental licenses for Stage 1 and 2 should be reviewed to ensure that world's best practice is adhered to, flaws in

in the existing conditions (and licenses) are rectified and that any long term impacts (particularly those associated with operational traffic) resulting from the absence of Stage 3 should be addressed and rectified prior to the opening of Stages 1 and 2.

Local impact issues are assessed in Parts 3 to 15 of this submission and in Beca's assessment. The key local impact issues raised for Council are air quality, construction and operational traffic (Parts 3 to 5) and much of the discussion in this submission addresses these.

In summary local impact issues are:

- Air quality impacts from ventilation facilities and increased surface traffic;
- The full range of construction impacts, including construction noise and vibration, dust and contaminants, truck movements, employee parking demands – from all construction sites;
- Particular concerns about residents suffering health issues from cumulative construction impacts and continuation of impacts at Haberfield/Ashfield and St Peters. Many of these affected residents have already endured significant impacts from the construction of Stages 1 and 2 and will now be subject to an extension and possibly amplification of these impacts;
- Particular concerns about noise, safety and amenity impacts from construction truck movements and ad-hoc stabling of trucks on streets;
- Operational traffic impacts around the Haberfield, Rozelle and St Peters interchanges - with long-term consequences for residential amenity, pedestrian/cyclist safety and parking demand - and the need to protect affected streets from this traffic;
- Particular concerns about operational traffic impacts on the Anzac Bridge and The Crescent / Johnston Street due to traffic increases on already congested roads and roads that are within residential or shopping areas;
- Need for a stronger commitment to reducing surface road capacity and implementing streetscape and public transport improvements wherever traffic is reduced by WestConnex – in particular, along Victoria Road and Parramatta Road;
- Social and economic impacts of compulsory acquisitions, which for Stage 3 largely applies to dwellings and businesses along Victoria Road at Rozelle, businesses adjacent to the Rozelle Rail Yards and businesses along Parramatta Road at Annandale;
- Risk of damage to buildings as a result of settling caused by tunnel-induced groundwater movements and need for independent verification of damage;
- Need for full delivery of the Rozelle Rail Yards recreation area and residual lands to Council at no cost, with all landscaping, paths and facilities constructed by the proponent according to final designs which have been the subject of a comprehensive community consultation program;
- Concerns that construction of WestConnex Stage 3 and the Western Harbour Tunnel (if built) could sever rights-of-way for future public transport, such as Sydney Metro West (rail) and a light rail link to White Bay and Balmain;
- Impact of clean-up of Rozelle Rail Yards site on heritage and biodiversity – concerns about lack of consideration of retention of rail heritage features in-situ and staging of site clearing to minimise biodiversity impacts;

- Need to improve the design of the Rozelle Rail Yards recreation area to limit the extent of motorway service areas, create more usable areas of open space and improve walk/cycle connectivity;
- Objection to impacts on Buruwan Park from the construction site at The Crescent and loss of part of Bignell Lane from the Pymont Bridge Road construction site;
- Need to address a range of other local issues raised by Council staff, community groups and members of the community through redesign and/or management plans within conditions of approval.

Council's discussion of local issues in this submission not only draws from Beca's assessment, but also Council staff's involvement with WestConnex from 2014 to 2017, which has included:

- Discussions with Sydney Motorway Corporation (SMC), Roads & Maritime Services (RMS) and City of Sydney staff at various meetings and site visits;
- Working with Haberfield/Ashfield and St Peters residents and DP&E and Environment Protection Authority (EPA) compliance staff to address local construction impact issues that have arisen from construction of WestConnex Stages 1 and 2; and
- Formal Council meetings and meetings of Council's WestConnex Community Liaison Forum (WCLF) and State WestConnex Community Reference Group (WCRG).

The EIS's 30 chapters have acted as a guide for the format of Council's 15-part submission, which is structured as follows:

- *Part 1: Assessment process & consultation* – relates to EIS Chapters 2: *Assessment process* and 7: *Consultation* – recommendations in this section identified with code AC;
- *Part 2: Justification for project* – relates to EIS Chapters 1: *Introduction*, 3: *Strategic context & project need*, 4: *Project development & alternatives*, 5: *Project description* and 30: *Project justification & conclusion* - recommendations in this section identified with code JP;
- *Part 3: Air quality impacts* – relates to EIS Chapter 9: *Air quality* - recommendations in this section identified with code AQ;
- *Part 4: Construction work* – relates to EIS Chapter 6: *Construction work* - recommendations in this section identified with code CW;
- *Part 5: Traffic & transport* – relates to EIS Chapter 8: *Traffic & transport* - recommendations in this section identified with code TT;
- *Part 6: Noise & vibration* – relates to EIS Chapter 10: *Noise & vibration* - recommendations in this section identified with code NV;
- *Part 7: Human health risk* – relates to EIS Chapter 11: *Human health risk* - recommendations in this section identified with code HR;
- *Part 8: Land use & property* – relates to EIS Chapter 12: *Land use & property* - recommendations in this section identified with code LP;
- *Part 9: Social & economic impacts* – relates to EIS Chapter 14: *Social & economic* - recommendations in this section identified with code SE;
- *Part 10: Urban design & visual amenity* – relates to EIS Chapter 13: *Urban design & visual amenity* - recommendations in this section identified with code UD;
- *Part 11: Soil quality, water quality & contamination* – relates to EIS Chapters 15: *Soil & water quality* and 16: *Contamination* - recommendations in this section identified with code SW;

- *Part 12: Flooding, drainage & groundwater* – relates to EIS Chapters *17: Flooding & drainage* and *19: Groundwater* - recommendations in this section identified with code FG;
- *Part 13: Biodiversity & heritage* – relates to EIS Chapters *18: Biodiversity*, *20: Non-aboriginal heritage* and *21: Aboriginal Heritage* - recommendations in this section identified with code BH;
- *Part 14: Environmental, hazard & risk factors* – relates to EIS Chapters *23: Resource use & waste minimisation*, *25: Hazard & risk*, *26: Cumulative impacts* *28: Environmental risk analysis* and *29: Summary of environmental management measures* - recommendations in this section identified with code ER; and
- *Part 15: Sustainability & climate change* – relates to Chapters *22: Greenhouse gas*, *24: Climate change risk & adaption* and *27: Sustainability* - recommendations in this section identified with code CC.

Key documents referred to in the drafting of this submission are either attached (see attachments list on cover page) or are referenced at the end of this submission.

This submission includes recommendations that have been drafted in response to the issues raised by Council’s assessment. They are within the body of the submission following each issue, and have been identified with the above-listed codes and number to ensure they can be linked to the relevant issue within the body of the submission. At the end of each part of this submission, a standard recommendation has been included to ensure that Beca’s assessment and recommendations are also considered along with this Council submission.

The recommendations have been divided into the following three categories:

- Recommendations that raise strategic and/or critical matters from the Stage 3 EIS that Council seeks to convey to the NSW Government. These recommendations begin with: *“That Council writes to the NSW Premier and relevant ministers ...”*.
- Recommendations that request the DP&E to require further assessment work to be undertaken on an issue raised by the EIS prior to any determination. These recommendations begin with: *“That Council requests the DP&E to require, prior to any determination ...”*.
- Recommendations that request DP&E to include certain matters within any conditions of approval. These recommendations begin with: *“That Council requests the DP&E to include in any conditions of approval ...”*.

All recommendations appearing throughout the submission have been brought together at and are divided into the above three categories.

PART 1: ASSESSMENT PROCESS & CONSULTATION

This part relates to EIS Chapters *2: Assessment process* and *7: Consultation*. It also relates to the ‘process’ issues outlined in the *Introduction* section of Council’s submission on the Stage 3 Concept Design.

Council is concerned that issues raised in the submissions to the Stage 3 concept design could not have guided the EIS.

As was the case for the Concept Design, the EIS raises consultation process issues as well as content issues. At this stage there are three key process issues. The first is that the nine working days between the close of exhibition of the Concept Design and commencement of

exhibition of the EIS could not have possibly allowed the issues raised by the former document to influence the latter. This signals to Council and the community that consultation on Stage 3 is tokenistic, has been rushed and could not have incorporated the detailed feedback provided on the Concept Design or resulted in any variation of the concept design.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers raising concerns about the short time period between public exhibition Concept Design and exhibition of the EIS, not allowing sufficient time for comments on the former document to influence the latter. This signals to Council and the community that consultation for WestConnex Stage 3 is tokenistic and has been rushed (AP1).

The two-month exhibition period is not sufficient to allow Council and the community to properly consider the EIS.

The two-month exhibition period has not been adequate to allow for proper consideration of issues by Council and the community. The period includes two weeks of school holidays and does not easily allow a draft submission to be reported to a Council meeting and comments integrated.

At over 7,000-pages, the EIS is very long and not easy to negotiate. For some issues, there is an over-supply of information, including complex presentations of data, whilst for other issues (including some very important issues for the Inner West) there is a lack of information. There are multiple changes in terminology - for example, traffic modelling data is expressed in varying units (Average Weekday Travel (AWT) , Average Annual Daily Travel (AADT) or Level of Service (LoS)), making interpretation difficult or impossible. All this has made it particularly difficult for Council and the community to understand this very large and complex project and make informed comments.

The newly-elected Council was concerned at the 3 October 2017 meeting that further resources were needed to cover topics considered critical to Council's assessment. This resulted in the following resolution:

"That Council:

- 1. Directs the General Manager to immediately appoint additional relevant consultants with the specialist expertise required to ensure that all aspects of the WestConnex Stage 3 M4-M5 Link proposal are fully assessed by council;*
- 2. These consultants to be appointed urgently by council. The areas identified as requiring additional specialist expertise beyond what is currently planned for the submission are: consultants in traffic modelling able to test the traffic modelling provided in the EIS; consultants in tunnel engineering; consultants in all health, mental health and community well-being matters arising from the WestConnex project; consultants to address all the safety aspects of the project; a noise expert to particularly assess the cumulative impacts of noise not addressed in the EIS and consultants to assess the updated (with the inclusion of Stage 3 and changes to Stage 1 and 2) financial case and cost-benefit analysis;*
- 3. That Council ensure that the air pollution consultant appointed by council will fully cover all issues relating to air pollution and that the environmental, heritage, biodiversity and planning impacts are fully assessed either by consultants or by staff with relevant specialist expertise. The submission must include a full assessment of the impacts on the community of the construction phase, including changes to Bus Stop, Pedestrian and Cycle Routes. The key focus of the submission needs to be on providing the evidence and the detailed reasons that council opposes the WestConnex project; and*

4. *Where there is a shortfall in funding allocated to this work, the additional funding should be identified in the next quarterly review.*”

“That council bring that draft council submission on WestConnex Stage 3 M4-M5 Link to an open council meeting for consideration by the councillors with contribution from the community on the submission sought at the meeting before it is finalised and submitted.”

However there are issues identified in the above resolution that could not be addressed in the s a short timeframe. Accordingly, Council has sought to identify the main issues that would have been addressed in greater detail had there been sufficient time.

These issues are:

- A cost-benefit analysis of all three stages of WestConnex;
- A detailed assessment of EIS traffic modelling results against Council’s independent modelling;
- A detailed assessment of human health impacts, including mental health; and
- A detailed assessment of stormwater and flooding impacts; and
- Other issues that will likely be raised after the submission has been lodged, including issues arising from Council’s consideration of the final submission (as lodged) at its 24 October 2017 Ordinary Meeting.

Council considered a draft of this submission at its 12 October 2017 Ordinary Meeting and made a number of comments that were able to be integrated into this submission in the two working days available between the meeting and the submission deadline. The 12 October resolution is as follows:

“That Council:

8. *Receive and note the Draft Submission;*
9. *Note that the final submission will be submitted by the 16 October 2017 deadline; and*
10. *Receive a further report with a copy of the final submission at the Ordinary Council Meeting on 24 October;*
11. *Ensure all community action groups have been consulted, and invited to attach their own submissions to Council’s, prior to final submission of the EIS response on 24 October 2017;*
12. *That Council purchase up to 1000 corflutes to be made available to residents who would like to display these. The corflutes will express opposition to WestConnex with the words being determined by WestConnex campaign groups and Council;*
13. *That there be a fuller argument against the compulsory acquisition of Buruwan Park developed in the submission including impact on Light rail, cycleways impact and use of the park by locals; and*
14. *That Council commits to writing to all members of State Parliament seeking their support for a full inquiry into WestConnex and that the EIS for Stage 3 not proceed until the inquiry is concluded.”*

Council has written to the DP&E requesting a two-week extension, but this has been denied. At the first formal meeting of the newly-elected Council – the Extraordinary Meeting of 21 September 2017 - Council adopted an urgency motion to write to the DP&E seeking an extension. Accordingly Council has again written to the DP&E but this request has also been denied.

Council has resolved to consider the final submission (as lodged) at its 24 October 2017 meeting and to forward to the DP&E further comments that may arise from that meeting.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers expressing concern that the requested modest extension to the WestConnex Stage 3 EIS exhibition period has not been granted (AP2).

There is a lack of clarity and detail on key issues in the EIS, prompting a need for public exhibition of final details in the Preferred Infrastructure Report and management plans prior to any determination.

Council has found that despite the substantial length of the EIS, there is lack of detail and/or on several key issues that are critical to Council and the Inner West community. The EIS states that further detail and a final design will be included in a Preferred Infrastructure Report drafted by the proponent after the EIS has been determined. Council is strongly of the view that because of the flaws in the EIS and the fact that project designs are likely to change substantially, it is imperative that the Preferred Infrastructure Report be placed on public exhibition prior to any determination. This will allow Council and the community to consider the additional assessments sought and the final designs prior to a determination.

The EIS has explained that for the Stage 3, design and construction contractors would be appointed to undertake the detailed design and construction planning following determination of the application for project approval, should it be approved. This means the detail of the design and construction approach presented in this EIS is indicative only and would be subject to detailed design to be undertaken by the successful contractors.

The EIS states that the design developed by the contractors would need to be consistent with any environmental management measures, changes identified in a Submissions and Preferred Infrastructure Report, the conditions of approval for the project and other RMS EIS requirements identified during the assessment of the project.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers requesting the DP&E publicly exhibits, prior to any determination, the WestConnex Stage 3 Preferred Infrastructure Report. This is to allow Council and the community to comment on further assessments undertaken and final designs prior to any determination (AP3).

Recommendation: That Council requests the DP&E to require, prior to any determination, establishment of a process that allows Council and the community to participate in the drafting and implementation of all management plans and urban design plans required by any conditions of approval (AP4).

Experience with consultation over Stages 1 and 2 raises concerns about delivery of the project being delegated to a corporation.

Council's experience with dealing with SMC over Stages 1 and 2 has at times raised issues about poor construction and complaints handling processes, and inability to access information that is commercial in-confidence. Council would prefer that all road projects in NSW were delivered by RMS rather than a corporation on behalf of RMS.

Recommendation AP 5: That Council writes to the NSW Premier and/or relevant ministers raising concerns about delivery of WestConnex by a corporation, seeking a transfer of delivery from SMC to RMS (AP5).

Council is concerned that recent uncertainties around construction of the Rozelle Interchange could lead to major changes to the staging and design of Stage 3.

Recent reports that the NSW Government was finding it difficult to procure a contractor to construct the Rozelle Interchange part of Stage 3. This has reinforced Council's prior concerns about the complex, difficult nature of this part of Stage 3 and the possibility that there will need to be significant design changes before the interchange could be feasibly constructed. There is also the possibility that planning of the mainline tunnel and Rozelle Interchange components of the project may proceed separately.

This highlights the concerns expressed elsewhere in this submission about the need for Council and community input into design changes. Significant changes, including the splitting of Stage 3 into two separate parts, would require a new EIS. Council does not want a situation where it has commented on a design that is significantly changed without its further input. This would be contrary to the intent and possibly letter of the NSW planning system.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers to express its concerns about the possibility that the Rozelle Interchange may proceed in a significantly altered form or as a separate project given recent reports about the difficulties involved in its construction (AP6).

PART 2: JUSTIFICATION FOR PROJECT

This part relates to EIS Chapters *1: Introduction, 3: Strategic context & project need, 4: Project development & alternatives; and 5: Project description*. It also relates to the strategic section of Council's submission on the Stage 3 Concept Design.

Though construction of WestConnex Stages 1 and 2 is advanced, it is not too late to stop WestConnex, and also abandon plans for other urban motorways such as the Sydney Gateway, Western Harbour Tunnel & Beaches Link and F6 Extension.

The EIS explains that WestConnex is Australia's largest infrastructure project. RMS (as proponent) has engaged SMC to finance, deliver and operate WestConnex projects on behalf of the NSW Government.

WestConnex Stage 3 is one of a number of the following WestConnex component projects that includes:

- Stage 1 – New M4 - M4 widening (completed) and M4 East (about 48% completed);
- Stage 2 – King Georges Road Interchange Upgrade (completed) and New M5 (about 36% completed); and
- Stage 3 – M4-M5 Link (in planning).

Related proposed motorway projects (all at an early planning stage) include:

- Sydney Gateway – a proposed motorway connection from the St Peters Interchange to Sydney Airport / Port Botany (in early planning);
- Western Harbour Tunnel & Beaches Link – a proposed motorway and road upgrade connection from the Rozelle Interchange to the Warringah Freeway and Frenchs Forest (in early planning); and
- F6 Extension – a proposed motorway connection from the New M5 at Arncliffe to the Princes Highway at Loftus (in early planning).

Recommendation: That Council writes to the NSW Premier and/or relevant ministers expressing the view that all stages of WestConnex should be abandoned, as should proposed motorways Sydney Gateway, Western Harbour Tunnel & Beaches Link and F6 extension (JP1).

The newly-elected Inner West Council is strongly opposed to WestConnex.

At the 3 October 2017 Extraordinary Meeting, Council discussed a number of WestConnex matters. The following resolutions from that meeting are relevant to this submission:

“Inner West Council formally adopts a position of continued opposition in the strongest terms to the WestConnex project, both approved and future stages including stage 3, consistent with the opposition of the former councils of Ashfield, Leichhardt and Marrickville.”

That Council “... writes to the Minister for WestConnex:

- a. *Urgently seeking a meeting to discuss the ongoing and unacceptable impacts on residents in Haberfield and St Peters from utility companies associated with the project conducting night works and the ongoing failure of vehicle operators to adhere to the project’s conditions of consent and traffic management plans;*
- b. *To demand assumptions and scenarios underlying the traffic modelling, contained in the Stage 3 EIS, not just model output;*
- c. *Seeking full funding from the NSW Government of all traffic calming and amelioration expenditure required as a result of WestConnex;*
- d. *Seeking the delivery of all legacy lands to Council or an appropriate body for public use at the earliest possible time;*
- e. *Seek a guaranteed funding commitment contained in the Stage 3 EIS conditions of consent for SMC to fund improvements to residual lands in accordance with council’s requirements; and*
- f. *Requesting that the Preferred Infrastructure Report for Stage 3 be publicly released prior to any assessment or approval.”*

Recommendation: That Council writes to the Premier and/or relevant ministers, forwarding a copy of Council’s letter to the Minister for WestConnex and include Council’s 3 October 2017 resolution regarding Council’s position on WestConnex (JP2).

All work on WestConnex should cease and a public independent inquiry held.

Further, Council requests a public independent inquiry be held to identify, investigate and resolve the problems that have been brought to light with all stages of the project – at both the planning and stages. The inquiry’s main task would be to investigate the business case for the project to identify, flaws in the process of evaluating the project at the highest level, and to determine whether Stage 3 (as currently designed) represents the best outcome for the economy and environment compared with a range of other transport options. The inquiry’s examination of alternatives should be comprehensive, and should consider a full range of alternative proposals including those presented by the City of Sydney and Inner West Council.

The inquiry would also be tasked to investigate the full range of local construction impact issues that have been encountered to date from Stages 1 and 2 and predicted local operational traffic impacts. This would result in a number of immediate improvements to the design details and construction practices of Stages 1 and 2 to reduce the currently

unacceptable impacts being suffered by the Haberfield/Ashfield and St Peters communities and future operational impacts. This would involve a number of retrospective modifications to Stage 1 and 2 conditions of approval and environmental licenses.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers to request that Stage 3 of the project not be approved. Prior to any further consideration of the Stage 3 EIS, an inquiry should be held into all parts of WestConnex examining issues with the project's business case, flawed Stage 3 EIS and unacceptable construction and operational impacts. Findings of the inquiry to determine whether Stage 3 should proceed and to recommend improvements to Stages 1 and 2 in relation to its design, conditions of approval and environmental licensing to reduce currently unacceptable impacts (JP3).

WestConnex cannot be justified strategically and the Stage 3 EIS is fundamentally flawed.

WestConnex Stage 3 is not justified at the strategic level as it represents a poor transport option that will have profound negative impacts on the liveability and urban form of the Inner West and wider metropolitan region. Nor is the project justified at a local level due to the severe and widespread local impacts that will be suffered by the Inner West community.

Beca's assessment of local issues raised by the EIS includes a number of conclusions about flaws in the EIS. This includes flaws in the assumptions that have guided the EIS's traffic and air quality modelling and lack of information about the precise nature of construction impacts. This is further evidence of the need for an inquiry.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers to express its concerns about a number of fundamental flaws in the Stage 3 EIS, including flawed traffic and air quality modelling, and deferral of the assessment of key environmental impact issues to later (post-determination) stages in the planning process (JP4).

The substantial cost of WestConnex to be redirected to public transport and other traffic-reduction options to secure Sydney's economic future.

As Council has repeatedly argued, public transport and other traffic-reduction options (not motorways) are needed to move Sydney toward a liveable and economically efficient transit-oriented urban form, where the city's inhabitants can for the most part access jobs, services and recreational opportunities by means other than car.

Creation of a transit-oriented urban form is increasingly necessary for a city's economic performance, as it is a pre-requisite for the 'new economy'. Knowledge-based corporations and their workers seek mixed, densely-developed urban areas that facilitate face-to-face interaction and are liveable, affordable and well-served by public transport.

It has been proven around the world that the most cost-effective means of reducing traffic is to continue to increase the extent and quality of public transport, supported by transit-oriented development and other traffic-reduction actions. In large cities such as Sydney, *rail* speed and reliability can be the most significant factor determining *road* speed and reliability. Increasing road capacity to solve traffic congestion has been proven to be self-defeating and ultimately futile.

The economic future of Sydney depends on its ability to compete with other large cities nationally and around the world to attract new economic activity, with the key measure for success being quality of public transport. Google's recent decision to withdraw its interest in

establishing a corporate headquarters in the Bays Precinct due to lack of public transport access to the site highlights the importance of quality public transport in securing Sydney's economic future.

WestConnex will contribute to the opposite – reduced patronage of public transport with corresponding declines in reliability and quality, induced traffic, urban sprawl, polluted air, compromised neighbourhoods, declining public health and an inefficient, costly transport system that will become an a burden on the city's economy. While other major cities around the world have abandoned large-scale inner-urban motorway construction, the NSW Government continues to push forward with this outdated road-based solution to Sydney's traffic problems.

Most of the views expressed in this submission on the strategic aspects of WestConnex are not unique to Inner West Council – they are the views of the former councils that now make up Inner West Council, the City of Sydney and numerous planning/transport professionals and residents of Inner West Council and the wider inner-Sydney area, including several western Sydney councils.

Note that Council's position of opposition to WestConnex is consistent with its 2016 independent survey of Inner West Council residents on a number of issues, including WestConnex. The survey found that almost 60% of respondents were opposed to WestConnex.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers to express its view that the substantial funding for WestConnex Stage 3 be directed to public transport, active transport and demand management solutions necessary to secure Sydney's economic future (JP6).

Council is concerned about the negative economic impacts of the financial cost of WestConnex and the equity impact of tolls.

Council is also concerned about the equity impacts of WestConnex, where the toll burden will fall primarily on lower-income earners in western Sydney. This is becoming an issue for western Sydney councils and their communities – not only through the direct impact of the tolls, but through revenue indirectly lost to western Sydney businesses, increased costs of living and a consequent decline in economic activity.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers to recognise the negative economic impacts of WestConnex Stage 3, including the substantial cost of the project (with few benefits) and the equity impact of tolls on Western Sydney residents (JP7).

WestConnex is not consistent with a number of NSW Government planning policies and is not consistent with some of its original aims.

Through induced traffic, WestConnex will undermine the NSW Government's own efforts to create transit-oriented development in other parts of Sydney, such as that proposed within along the Parramatta Road and Sydenham to Bankstown corridors. The impact of WestConnex on these corridors is further discussed in other parts of this submission.

WestConnex will also undermine several of the NSW Government's own transport and planning policies, including the 2014 *Metropolitan Strategy*, the 2016 *draft Central Subregional District Plan* and 2016 *Future Transport Technology Roadmap*. The latter strategy foresees a number of changes around technology, demographics and rates of car ownership that threaten to undermine the value of WestConnex in the longer-term. By

increasing vehicular traffic, WestConnex also undermines the NSW Government's active transport plans and policies, such as the 2013 *Sydney City Centre Access Strategy* and 2013 *Sydney's Cycling Future*.

It is well recognised that the provision of on-site parking contributes significantly to the cost of both housing and business premises. Consequently, by encouraging increased reliance on private cars and increasing the need for development to provide parking, WestConnex undermines the State's various affordable housing policies. Increasing pressures for kerbside parking makes it difficult for Council to reclaim kerbside space for much-needed street improvements such as widened footpaths, bicycle lanes and trees/gardens.

Council is concerned that WestConnex, as a motorway-only transport option, fails to meet some of its own objectives. Key failures include the likelihood that surface traffic will not be reduced in the long-term due to mode-shifting and associated induced traffic, that the project will not lead to the rejuvenation of Parramatta Road, there will be worsening of congestion on already congested roads such as Victoria Road at the Iron Cove Bridge and City West Link Road at Anzac Bridge, there will be lack of connectivity to Sydney Airport and Port Botany and the project will have limited advantages for heavy vehicles. The alternative proposals of the City of Sydney and Inner West Council had aimed to draw attention to this issue.

Regarding connections to Sydney Airport and Port Botany Beca's assessment acknowledges that *"The NSW Transport Master Plan recognises that WestConnex would support Sydney's long-term economic growth by supporting the growing freight task between Sydney's international gateways and greater western Sydney, facilitating the transfer of goods and services between Sydney's eastern and western economic centres by improving capacity and reducing travel times, and supporting the continued development of Sydney's global economic corridor."*

Beca is however concerned that there have been a number of subsequent changes to the project's alignment has moved this aim well down the list of priorities, with the Sydney Gateway project to meet this aim at a later stage. The reasons for this shift in priorities have not been communicated in the EIS or updated Business Case.

Recommendation: That Council writes to the NSW Premier and relevant ministers pointing out that WestConnex conflicts with the aims of a number of NSW Government plans and policies, including the 2014 *Metropolitan Strategy* and the 2016 draft *Central Subregional District Plan* (JP8).

Recommendation: That Council writes to the NSW Premier and/or relevant ministers pointing out that WestConnex as currently designed is not consistent with some of the project's original aims, including provision of a road link to Sydney Airport and Port Botany (JP9).

The 2106 SGS review of the WestConnex business case explains there has been no serious evaluation of the chosen motorway-only option against other transport and demand-management option.

Council continues to be seriously concerned about the flawed processes for the evaluation of this project. In 2015 and 2016 submissions from the former councils that now make up Inner West Council on WestConnex Stages 1 and 2, particular concerns were raised the poor business case for the project.

In particular, there has been no serious evaluation of the chosen motorway-only option against combinations of other transport options that would have been more effective in

allowing the project to meet its own objectives at a lower cost. Some of these options are outlined in the alternative proposals recommended by Inner West Council and the City of Sydney. It is apparent from the project's business case that the motorway-only option was chosen at the very beginning of the planning process and the business case drafted to support this.

As part of the development of submissions by former Leichhardt and City of Sydney Councils Stage 2 (New M5) in 2016, SGS Economics and Planning was commissioned by both councils to undertake review of the WestConnex business case. Though the review was undertaken in 2016, all of its findings are currently relevant, and are as equally relevant to Stage 3 as they were to Stage 2. This report is available on [Council's website](#).

In summary, the SGS review's findings were:

- WestConnex does not align with the NSW Government's Metropolitan Strategy (*'A Plan for Growing Sydney'*, December 2014) or reflect Sydney's changing employment, land-use and transport needs. It could be added that WestConnex also does not align with the Greater Sydney Commission's 2016 *Draft Central District Plan*.
- Whilst WestConnex will be the largest continuous motorway in Australia and will influence land use and transport patterns over half of Sydney, its purpose and the challenges it is trying to address are unclear.
- The NSW Government's Metropolitan Strategy sets out a multi-centre strategy, focused on making it easier for Sydney residents to move between their homes, jobs and the centres where they shop, study and play. The plan highlights the transformation of western Sydney centres (Parramatta, Penrith, Liverpool and the Campbelltown-Macarthur region) through growth and investment. WestConnex does not align with the Metropolitan Strategy and squanders limited infrastructure funding that is needed for effective transport solutions for western Sydney.
- WestConnex will not deliver for Western Sydney, or for taxpayers, or the travelling public. Sydney's travel and employment patterns are changing and motorways focused on the inner city do not align with current travel needs, let alone the emerging needs for the future of Sydney.
- The stated freight and urban renewal justifications for WestConnex are outdated or unsubstantiated.
- The first original rationale of freight connections to Sydney's gateways of Port Botany and Sydney Airport are no longer a core part of the project, and WestConnex does not take into account the second airport at Badgerys Creek.
- The Federal Government's commitment to the construction of a second Sydney airport at Badgerys Creek was made after WestConnex was announced and its business case completed. The announcement of the second airport itself is sufficient to warrant a review into the merits of WestConnex.
- By the time WestConnex links to Sydney's existing airport in 2023, planes will be arriving at Sydney's new international airport at Badgerys Creek. When WestConnex finally links to industrial areas in Mascot, most of the area's freight industry and manufacturing jobs will have relocated to the light industrial centres of Eastern Creek, the Broader Western Sydney Employment Area and south-west Sydney.
- Alternative freight infrastructure is already being delivered, including the Port Botany Rail Freight upgrade and the Moore bank Intermodal terminal. These projects will increase capacity to move freight to and from Port Botany by rail. WestConnex will duplicate the M5 East motorway without clear benefits for freight transport.

- The second original rationale of urban renewal on Parramatta Road is uncertain, as congestion is likely to continue to undermine amenity along Parramatta Road. No traffic forecasts have been released to justify how this busy road will become any safer, healthier or more liveable, compared with a 'do nothing' scenario. Parramatta Road remains in need of the only real solution to congestion—high quality public transport.
- WestConnex won't increase western Sydney residents' access to jobs and economic development.
- Only a small proportion of workers from western Sydney commute to inner Sydney. Of those that do need to commute to inner Sydney, 90% rely on public transport. Increasingly, commuters are facing crush conditions on the CityRail network approaching both Parramatta and central Sydney. WestConnex will divert funding to a project that will not ease pressure on rail services and which does not serve western Sydney's major employment centres.
- Western Sydney needs more jobs close to where people live, and better transport within and to the key centres of Liverpool, Parramatta, Penrith and Campbelltown-Macarthur. Industrial areas near Mascot are rapidly becoming commercial and residential, and manufacturing jobs have largely moved to Western Sydney.
- WestConnex will cost taxpayers \$11.5 billion (2016 figure) – in direct Government funding and the payment of user tolls for decades, including the introduction of new tolls on roads that are not currently tolled. It is residents of western Sydney who are most likely to be short-changed, with toll and parking costs of up to \$48 predicted for a single trip. That's \$240 per week for a commuter who has no reliable access to public transport alternatives.
- Alternative projects could deliver more effectively on stated government objectives, including public transport projects focused on Western Sydney.
- Extending the North West Rail Link through the Sydney CBD to Liverpool, Sydney Rapid Transit (SRT) would connect the North West and South West to jobs, unlocking critical capacity across the rail network.
- Similarly, the Western Sydney Rapid Transit (WSRT) would link Western Sydney to the Sydney CBD via the Parramatta Road Corridor, serving important centres such as Parramatta, Sydney Olympic Park and Strathfield and supporting the renewal of Parramatta Road could also be created.
- Concern that the project has not been subject to proper governance and independent assurance are supported. The Auditor-General's Report (WestConnex: Assurance to Government, 18 December 2014) raised serious concerns around the process undertaken to date and the adequacy of the project in terms of governance and independent assurance. The report found that the Government failed to implement its own Major Projects Assurance Framework.
- The NSW Auditor-General's Report found that the preliminary business case submitted for a Gateway review had many deficiencies and fell well short of the standard required for such a document. The subsequent business case put to Government still included deficiencies.
- Significant questions remain about the WestConnex project's capacity to achieve its stated aims and meet Sydney's transport challenges.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers forwarding the 2016 SGS Economics & Planning review of the WestConnex business case, seeking a response to the review's findings (JP10).

The NSW and Australian Auditors General reviews of WestConnex funding and approvals processes is highly critical of the project.

The abovementioned SGS review explained the NSW Auditor General had been critical of the project. Since the SGS review, the Australian Auditor-General has also reviewed the WestConnex business case, and in February 2017 released a report on its findings, which was critical of many aspects of the project's funding and approvals process. It found the project had a poor business case that did not adequately consider alternative transport options, had lacked strategic oversight of its funding/approval process and appeared to be rushed to implementation.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers seeking a response to the findings of reviews of WestConnex funding and approvals processes by the NSW and Australian Auditor Generals released in 2016 and 2017 respectively (JP11).

The benefits of WestConnex have been overestimated and the costs underestimated.

Council is of the view that the economic case for all stages of WestConnex is flawed, with the costs far outweighing the benefits. Even if the case for WestConnex could be boosted through enhanced connectivity with other motorways such as the Western Harbour Tunnel, the Beaches Link and F6 Extension (which is doubted), there is no business case, timeline or funding commitment to these other projects. Even the Sydney Gateway Project, providing a critical link to Sydney Airport / Port Botany, has been separated from WestConnex and will be assessed separately.

It would appear the project's benefits have been overestimated and its costs underestimated. As is discussed elsewhere in this submission, Council doubts the timesaving benefits of the project - and even if realised, whether they are of sufficient magnitude to be of any real value to individual motorists. The financial opportunity cost of WestConnex is high and rising - but of particular concern to Council are the substantial unaccounted health costs inflicted on Inner West residents through the many and varied construction and operational impacts of the project.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers to express concerns about the flawed economic case for WestConnex through over-estimation of benefits and underestimation of costs. Council is particularly concerned that the substantial health costs imposed on the Inner West community by the project have not been accounted for (JP 12).

Recommendation: That Council requests the DP&E to require, prior to any approval, an assessment of Beca's comments and recommendations in relation to Part 2 of Council's submission, *Justification for project* (JP 13).

PART 3: AIR QUALITY

This section relates to EIS Chapter 9: *Air Quality*. It also relates to Issue 1 in Council's submission on the Stage 3 Concept Design: "*Air quality & visual impacts from ventilation facilities, including concerns about unfiltered ventilation facilities proposed for the Rozelle Rail Yards (RRY) site and Victoria Road near Terry Street – the latter facility raising particular concerns due to its proximity to densely developed residential areas.*"

Council's preference for public transport is in part based on the air quality benefits that accrue from public transport over motorways.

At a strategic level, Council's preference for public transport is in part based on the air quality benefits that accrue from public transport over motorways. Council accepts that due to technological advances per-vehicle emissions have declined in recent years, but remains concerned about additional traffic generated by WestConnex negating technology-related air quality reductions.

Council continues to argue that high-occupancy public transport coupled with transit-oriented development is the most effective way to achieve travel emission reductions on a per-passenger-kilometre basis. It is acknowledged that currently a proportion of the electricity generated for public transport is from non-renewable sources, but it should be a national and State goal for the longer-term that public transport be powered from renewable sources.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers expressing concerns about air quality impacts from WestConnex, pointing out that high-occupancy public transport (Council's preferred transport option) would result in lower local emissions and lower overall emissions on a passenger-kilometre basis (AQ1).

There is a need to reduce emissions from all sources and further assess the project's contribution to cumulative emission impacts.

It is noted from the EIS that Sydney's air quality is considered good by world standards. This is not disputed, but the statement that the NSW Government is committed to improving it by reducing emissions from vehicles (and all other sources) is disputed, as WestConnex will inevitably lead to traffic growth across a large part of Sydney. With more vehicles will come more emissions?

Induced demand created by WestConnex, i.e. car trips that happen purely as a consequence of the motorway being built, is anticipated to be 45,000 additional car trips per day. Increased traffic has the potential to create greater congestion at locations slightly removed from WestConnex, including Iron Cove Bridge and Anzac Bridge. Congestion would contribute to a further decline in air quality in Sydney. The EIS has not acknowledged that the air pollution created by these new congestion points would likely outweigh improvements achieved by improved traffic flows on the motorway and create 'hot-spots' of poor air quality at congestion points across Sydney.

The EIS argues that the contribution of car exhaust to total air pollution at the Sydney-metropolitan scale is minor at only 0.75%, with solid fuel burning the largest contributor at 50.6%. The EIS has omitted other non-exhaust particulates emitted by vehicles (5.5%), light duty diesel exhaust (2.2%), industrial vehicles and equipment (1.4%), which would bring total vehicle emissions to almost 10%.

Even if this was considered to be a low proportion of the total, the EIS concedes that PM_{2.5} vehicle emissions can have a health impact at any level, as can the cumulative impacts of all emissions. It could thus be argued that governments should be acting to reduce all types of emissions within all sectors, including transport. As is mentioned above, the long-term goal for transport emissions should be zero, through high-occupancy public transport powered by renewables.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers seeking a commitment to reducing all forms of emissions across the metropolitan region to ensure cumulative impacts from road-related sources are minimised (AQ2).

Recommendation: That Council requests the DP&E to require, prior to any determination, a further assessment of the project's contribution to cumulative air quality impacts. This includes consideration of emissions from the White Bay cruise ship terminal and emissions from Sydney Airport flight paths (AQ3).

Council and the community are concerned about emissions from both ventilation facilities and roadside emissions.

The EIS correctly states that surface road emissions would be reduced wherever vehicles are within WestConnex tunnels. This however should not be claimed as a benefit of the project, as these same emissions emerge at the ventilation facilities. The EIS claims that ventilation facility emissions do not represent a major impact on surrounding communities and are able to meet emission standards by dispersing pollutants into the regional air-shed. Council remains concerned about any contribution to air pollution at both the local and regional level.

It would appear that concerns about the Stage 3 ventilation facilities at the RRY site and on Victoria Road have been greater than the Stage 3 facilities proposed for St Peters and Haberfield/Ashfield. This is because the community has known about the Stage 1 and 2 facilities for some time. This does not necessarily mean that the actual impact of the Haberfield/Ashfield and St Peters ventilation facilities will be less than the Rozelle facilities – in fact, Council is concerned that the co-location of ventilation facilities at Haberfield/Ashfield and St Peters could result in higher cumulative emissions.

Council is strongly of the view that releasing emissions from these facilities unfiltered - as is proposed for all stages of WestConnex - is not acceptable, even if compliance with regional air quality standards can be achieved without filtration. Council is aware that filtration is costly, reduces the dispersal of emissions by slowing the velocity of air passing through the facility and is not currently applied (or proposed to be applied) to any motorway tunnel in Sydney.

At a local level, there has been particular concern in the community about air quality and visual amenity impacts from the ventilation facilities proposed for Stage 3 within the RRY site (near The Crescent) and on Victoria Road near Terry Street. The latter facility has raised concerns due to its proximity to densely-developed residential areas and the fact that residential areas on the eastern side of Victoria Road are elevated, so there is a possibility that some dwellings will be above the level of the facility outlet.

Similar concerns have been raised that some residential areas in Rozelle and Lilyfield would be above the level of ventilation facilities proposed for the RRY site near The Crescent. Rozelle Primary School and Sydney Secondary College Balmain are also within close proximity to the Victoria Road / Terry Street facility, and Council is aware that the school's Parents' and Citizens' Association (P&C) has raised concerns about air quality impacts on children. These and other schools in the area around the RRY could also potentially be above the level of the ventilation facility.

Although raising the height of ventilation facilities increases dispersal of emissions, it also increases visual impact. The height of the St Peters ventilation facilities has been limited by the Obstacle Limitation Surface for Sydney Airport, so reduced dispersal can be expected from these facilities. At St Peters, Council is also concerned that the dispersal of ventilation facility emissions may be affected by turbulence from passing aircraft.

Concerns have also been raised about emissions from the combined Stage 1 and Stage 3 ventilation facility on Parramatta Road at Haberfield affecting Haberfield Primary School, and

emissions from the Stage 2 and 3 facilities at the St Peters Interchange affecting St Peters Primary School.

Recommendation: That Council requests that the DP&E require, prior to any determination, a further assessment of air quality impacts from ventilation facilities on nearby schools and to assess ventilation facility height, local topographical effects and weather effects on emissions (AQ4).

Filtration is justified and a further assessment of filtration options is needed.

Beca concurs with the EIS that results of the modelling indicates that discharges from the ventilation facilities are unlikely to make a significant contribution to ambient air pollutant levels. However the primary impact will be from changes in surface road traffic volumes. This is predicted to be a spatially asymmetric effect. Compared to a 'do minimum' traffic scenario prediction, air quality levels would potentially improve at some locations while deteriorate at others. The primary concern is predicted to be emissions of NO₂ and fine particulate matter.

Nonetheless, Council considers that filtration should be applied to all WestConnex ventilation facilities to ensure every effort is made to minimise air quality impacts. As far as Council is concerned, the added financial cost of filtration is justified to ensure the health costs of WestConnex are not passed on to the community. The added costs of filtration further highlights the need for a re-assessment of the project's benefits and costs.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers seeking filtration for all existing and proposed WestConnex ventilation facilities. This is regardless of financial cost and whether compliance with air quality standards can be achieved without filtration (AQ5).

Recommendation: That Council requests the DP&E to require, prior to any determination, a full assessment of the costs and benefits of ventilation facility filtration (AQ6).

Increased roadside emissions from WestConnex raises concerns and a further assessment of these emissions is needed.

Added to this are emissions from additional WestConnex-generated traffic travelling on surface roads around the three interchanges. It is apparent from the EIS that surface road emission reductions occur above tunnel routes, but increase around the ventilation facilities and on surface roads around the interchanges. Of particular concern are emission increases at Victoria Road from the Iron Cove Link tunnel portal at Rozelle through to Drummoyne; Anzac Bridge and Western Distributor; and Canal Road, Gardeners Road and adjoining major roads in the Mascot area.

Although most of the impacts at these locations are (respectively) within the Canada Bay, City of Sydney and Bayside Council areas, they are close to the Inner West, and the impacts on the Inner West are likely to be increased at times by local weather effects, such as wind – a point that has not been noted in the EIS. Council is concerned about emission impacts on all residential areas and other sensitive uses regardless of whether or not they are within Council's boundaries.

Emission impacts along the Anzac Bridge and Western Distributor are of particular concern as they will affect the substantial future residential and commercial development planned for the Bays Precinct. It is critically important that this be taken into account now, before planning for that precinct has progressed further.

It may be appropriate that the amount and density of development planned for the Bays Precinct be reduced to account for WestConnex air pollution impacts. A further concern is the impact of these emissions on the existing area of high density residential (apartment) development on the southern (Bayside Council area) side of Gardeners Road around Mascot Railway Station.

Beca explains that although worst-case emissions from the ventilation discharges have been assessed, it is arguable that, in accordance with the Secretary's Environmental Assessment Requirements (SEARs) air quality requirement 2(d), that worst-case surface-road discharges, for at least the emissions from the roads, ramps and interchanges (which form part of the project) should also be assessed.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers expressing concerns about air quality impacts from roadside emissions from additional traffic generated by WestConnex (AQ7).

Recommendation: That Council requests DP&E to require, prior to any determination, an assessment of the worst-case contribution of WestConnex Stage 3 to increased roadside emissions around Victoria Road, Rozelle, the Anzac Bridge and Canal Road / Gardeners Road Mascot. DP&E to consider these emissions in any future rezoning that increases the density of development in these areas, including the Bays Precinct (AQ8).

Council is also concerned about in-tunnel air quality and a further assessment of in-tunnel filtration options is needed.

Despite assurances within the EIS that WestConnex will include a state-of-the-art tunnel longitudinal ventilation system, experience with tunnels such as the existing M5 have shown that it is inherently difficult to achieve clean air within any road tunnel. Cars offer some protection from poor air quality, but this is not the case for motorcycles, and there is likely to be a proportion of tunnel users that are sensitive to pollutants at any level, e.g. asthmatics – and it is noted that approximately one in nine Australians suffer from asthma.

Though the journey through WestConnex tunnels would for most drivers last for a relatively short period, there will be regular users of these tunnels that will be affected by pollutants over a long period. There will also be times when congestion slows traffic, increasing emissions and holding motorists within the tunnel for a longer period, increasing their exposure to pollutants.

Further, the EIS does not include any information about alternative in-tunnel ventilation should the main system fail or if there is a fire or similar emergency situation in the tunnel. In contrast, most of these issues do not apply to rail tunnels as there are no in-tunnel emissions.

Beca's assessment raises most concern about in-tunnel emissions. It explains that potential in-tunnel NO₂ effects have been estimated in the EIS using ACTAQ's 2016 *In-Tunnel Air Quality (nitrogen dioxide) Interim Policy*. This criteria level is consistent with limits used to assess other tunnel projects in NSW. Beca accepts that the ACTAQ criteria as being representative of 'best practice' in NSW given its general acceptance in this state. However, it is noted in the report that there are more stringent in-tunnel limits used internationally.

Recommendation: That Council requests the DP&E to require, prior to any determination, a further assessment in-tunnel emissions, in-tunnel filtration options and emissions issues in failure or emergency situations (AQ9).

Recommendation: That Council requests the DP&E include in any conditions of approval a requirement for monitoring and limiting in-tunnel emissions according to the most stringent limits used internationally (AQ10).

Council is concerned about the effect of steep grades of Rozelle Interchange ramps increasing emissions.

The tunnels that make up the Rozelle Interchange are a particular concern, as several would need to be constructed at steep grades to allow traffic to travel from some depth to the surface. As grades increase, so do emissions. The effect of grade on emissions has been an issue for the existing M5 East.

Recommendation: That Council requests the DP&E to require, prior to any determination, an assessment of the air quality implications of emergency situations and the steep grades proposed for the Rozelle Interchange (AQ11).

There may be a need to review State and national standards to improve air quality.

Although the EIS argues that unfiltered emissions from WestConnex ventilation facilities complies with national air quality standards, it could also be argued there is a need to review these standards to ensure they are bringing about *improved* air quality in Australia's cities in the long-term.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers expressing the view that State and national air quality standards may need to be reviewed to bring about an *improvement* in air quality in Sydney (AQ12).

There is a need for air quality monitoring at sensitive land uses in consultation with Council and the community, and display real-time data.

Council will also continue to argue that monitoring of childcare centres, schools and aged housing is a priority, and the community is kept fully informed of the results of air quality monitoring established for all stages of WestConnex, including Stage 3. Council is represented on the Air Quality Community Consultative Committee (AQCCC) for Stages 1 and 2, so is aware the air quality monitoring stations are being established to monitor emissions in relation to those projects.

Through this committee, Council will continue to argue that monitoring of sensitive land uses be prioritised. Council will also continue to argue for the real-time online display of all air quality monitoring data, as has been established for monitoring of emissions from White Bay cruise ship terminal. Council has recently written to EPA to request this arrangement for WestConnex.

Recommendation: That Council requests the DP&E to require, prior to any determination, an assessment of WestConnex air quality impacts on vulnerable groups such as asthmatics, young children and older people (AQ13).

Recommendation: That Council requests the DP&E to include in any conditions of approval a requirement for continual air quality monitoring of sensitive land uses such as schools. Monitoring would be guided by an air quality committee that includes representation from Council and the community, with results publicly available online in real-time (AQ14).

Recommendation: That Council requests the DP&E to require in any conditions of approval calibration and validation of Stage 3 air quality modelling results to assess

actual impacts. Mitigation measures to be implemented should validation show that impacts are higher than predicted (AQ15).

A change from conventional to electric vehicles should encouraged in the long-term to reduce emissions.

Although the EIS's air quality assessment does appear to have acknowledged a proportion of electric vehicles in the fleet, Council is sceptical that there will be noticeable proportion of these vehicles in the national fleet in the near future. The average age of cars in Australia is around 10 years - consequently it will take quite some time for the fleet to turn over and it cannot be known what rate of turnover the air quality modelling has predicted. As far as Council is aware, there are no clear State or national policies to encourage electric vehicles. Further, construction of motorways will encourage greater car use through the induced traffic effect, as has been pointed out throughout this submission.

In the foreseeable future, the Inner West community will continue to endure unacceptable air quality impacts from vehicles. It should also be acknowledged that even if at some point in the future the vehicle fleet is wholly (or almost wholly) in the form of electric vehicles, excessive traffic will continue to create problems of congestion, road safety risks, compromised liveability and poor land use / transport integration. Electric vehicles should nonetheless be encouraged to reduce emissions, and these vehicles should be powered by renewable sources.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers seeking policies that can encourage electric vehicles powered by renewable sources to reduce emissions (AQ16).

There is a need to consider all vehicle emissions, not just tailpipe emissions.

The EIS has also not adequately acknowledged that tailpipe emissions are not the only form of pollution generated by increase car use. Dispersal of particles from brakes and tyres for example doesn't appear to have been addressed. Nor has the EIS adequately considered vulnerable populations in its air quality assessment – for example, very young and older populations and those with respiratory conditions such as asthma. For these vulnerable groups, construction dust is also a major consideration.

Recommendation AQ: That Council requests the DP&E to require, prior to any determination, a further assessment the impact of all vehicle emissions, not only tailpipe emissions (AQ17).

Although issues are not raised about the EIS's modelling method, there are concerns that traffic modelling inputs into the air quality model may be flawed.

Beca's assessment of operational air quality points out that the modelling and assessment methodology used in the EIS varies from the NSW approved methods in a number of ways – for example, choice of dispersion model, the method used to construct the meteorological input file, and the method used to calculate NO₂ concentrations.

However, the approach taken is generally consistent with other air quality assessments undertaken for current NSW infrastructure projects. Beca has not raised any issues overall with the EIS's methodology. Beca has however raised concerns that the flawed traffic modelling used in the air quality modelling may have led to an inaccurate assessment of air impacts overall.

Beca points out that the regional air quality impacts of Stage 3 have been assessed in the EIS in terms of the relative impact based on the estimated difference in total vehicle emissions for the 2023 and 2033 'do minimum' and 'do something' traffic scenarios, which are not predicted to increase impacts. Beca's concern here is that vehicle emission rates in the EIS incorporate only main roads, which are included in the EIS's traffic model.

The emission contribution from regional and local roads should also be considered in this assessment. This is appropriate as several of these lower-order roads are expected to experience increased traffic due to the project.

The key concern in relation to operational air quality impacts is that results of the EIS modelling indicate that the discharge of particulates and NO₂ may exceed criteria levels at impact receptors when surface roads are taken into account as well as the ventilation facilities. It is a major omission from the EIS that only emissions from ventilation facilities has been considered.

No mitigation or air quality monitoring has been proposed for the larger contribution from surface roads, particularly at the locations which are predicted to be significantly affected by additional traffic. On the basis of the EIS, these locations include Victoria Road from the Iron Cove Link tunnel portal at Rozelle through to Drummoyne; Anzac Bridge and Western Distributor; and Canal Road, Gardeners Road and adjoining major roads in the Mascot area.

Recommendation: That Council requests the DP&E to require, prior to any approval, an assessment of how flaws in the traffic modelling explained in Council submission could influence air quality modelling results. Assessment to consider emissions from WestConnex-generated traffic on local and regional roads, not just State roads (AQ18).

There is a need to clarify expected maximum NO₂ concentrations at key monitoring points.

A key concern for Beca is that maximum 1-hour NO₂ concentrations at some of the receptors are predicted by the EIS exceed the National Environment Protection Council (NEPC) criteria by a factor of approximately two. The report has considered that these effects are likely to be overestimated due to a number of factors. Beca agrees with the EIS that the 1-hour average NO₂ are likely to be overestimated based on the results of ambient monitoring conducted in Sydney. However, it is still unclear in the assessment what the expected NO₂ maximum concentrations are predicted to be at these receptors.

Recommendation: That Council requests the DP&E to require, prior to any determination, clarification of the expected maximum NO₂ concentrations at key monitoring points (AQ19).

Although Beca has concluded that on the basis of the EIS, ventilation facilities are unlikely to make a significant contribution to maximum cumulative air pollutant levels, it is concerned that these predictions have not incorporated the effects that building structures in the vicinity of the stacks, which could be significant. It is acknowledged that the sensitivity of the predictions to building downwash effects is briefly discussed in the EIS. However these local factors on pollutant dispersion and ground level pollutant levels have not been identified and assessed in the EIS. As discussed elsewhere in this submission, Council has been particularly concerned about the proposed ventilation facility on Victoria Road at Terry Street for this reason.

Recommendation: That Council requests the DP&E to require, prior to any determination, an assessment of the local effects of buildings, structures and

topography on emissions from ventilation facilities, with the results of this assessment to guide mitigation measures (AQ20).

Council is concerned about construction dust and other construction emissions.

Beca's assessment of emission impacts from construction vehicles has not raised concerns, except for situations where construction trucks may be idling within close proximity to residential areas, schools or preschools. Conditions of approval should address these situations, along with diesel emissions from generators. Reducing the idling of trucks would also have noise-reduction benefits – discussed in Part 4 of this submission – *Construction work*.

Concerns are raised that the EIS's risk assessment determined that all sites were at high risk of being affected by dust soiling, and some sites were at high risk of experiencing adverse impacts on human health and ecology. This would fit with Council's experiences with dust impacts from Stages 1 and 2.

Beca considers it critical that the dust mitigation methods used for the project include all of the relevant methods included in the UK Institute of Air Quality Management (IAQM) guidance and that a robust system of monitoring the impacts of discharges to air from construction of the project is described in the project construction methodology and the construction air quality management plan. Further, Beca believes the impacts of discharges to air from blasting and any onsite concrete batching plants also needs to be identified and assessed, and appropriate mitigation measures included in the plan.

Beca points out that there is potential for nearby receptors to be impacted by dust from the proposed construction activities at times, even with the implementation of a construction air quality management plan. This raises the need for a best-practice monitoring system to be implemented in all areas where sensitive receivers are at medium to high risk of dust impacts. The need for improved management and continual monitoring of construction-related is consistent with Council's experience with resident complaints about dust from Stages 1 and 2. Monitoring should be undertaken in both indoor and outdoor environments.

Beca's assessment has pointed out that the EIS has identified that there is also potential for crystalline silica emissions to occur at the construction stage. The section does not however identify whether any other hazardous materials may be encountered during earthworks such as those that may arise from a contaminated site or how these materials would be managed if they were encountered.

Beca's assessment points out that the list of mitigation measures included in EIS does not include all of the items recommended by the IAQM for medium and high risk sites. Details of items Beca has assessed are not adequately considered are included within its air construction air quality assessment at **Attachment 1**.

Recommendation: That Council requests the DP&E to include in any conditions of approval a requirement for management plans that include all of the items recommended by the UK Institute of Air Quality Management (IAQM) for medium and high risk sites with appropriate mitigation measures. This includes consideration of all construction-related emissions (not just crystalline silica), emissions from on-site concrete batching plants, emissions from idling of construction trucks, emissions from blasting and implementation of best-practice monitoring (AQ20).

Recommendation: That Council requests the DP&E to include in any conditions of approval alert and alarm values for dust concentrations and wind speed/direction

which can be used for modification of site operations, dust control methods and for stopping work if necessary (AQ21).

Beca has a number of other comments and recommendations that are relevant to air quality.

Recommendation: That Council requests the DP&E to require, prior to any approval, an assessment of Beca's comments and recommendations in relation to Part 3 of Council's submission, *Air quality* (AQ22).

PART 4: CONSTRUCTION WORK

This section relates to EIS Chapter 6: *Construction work*. It also relates to Issues 2 to 6 in Council's submission on the Stage 3 Concept Design, which are in summary:

- *Concerns about the full range of construction impacts – including truck traffic, employee parking, construction noise and dust – around all Stage 3 construction sites;*
- *Particular concerns about construction impacts from mid-tunnel construction dive-sites – concerns about noise, dust and traffic impacts from such sites proposed for Darley Road, Leichhardt and Bridge Road / Parramatta Road, Annandale;*
- *Opposition to all Stage 3 mid-tunnel construction dive-sites and preference for no dive-sites or a potentially lower-impact alternatives at the western end of the RRY site;*
- *Concerns about continuation of construction impacts at Haberfield - resulting in a prolonged extension of construction impacts – an important issue as Haberfield residents have already endured significant impacts from the construction of Stage 1; and*
- *Concerns about large numbers of construction trucks using local streets for stabling and travelling along local roads – with resulting noise, safety, parking and amenity impacts.*

Council's main concern with the two-stage construction of Stage 3 is that this should not increase or extend construction or operational impacts on residents.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers to request that two-stage construction of Stage 3 does not increase or extend construction or operational impacts on residents (CW1).

Council is concerned about the number, variety and staging of Stage 3 construction activities across multiple sites.

As has been the case for Stages 1 and 2, a range of construction facilities will be established and activities undertaken at and around all Stage 3 worksites. Sites that support the construction of the mainline tunnels would be located throughout Haberfield/Ashfield, Leichhardt, Annandale and St Peters. Sites that support the construction of the Rozelle Interchange would be located throughout Lilyfield, Annandale and Rozelle.

All of these construction sites are within the Inner West Council area, with the exception of the Campbell Road site, which is located within both the Inner West and City of Sydney council areas. It is also noted that the Annandale/Camperdown and Rozelle/Lilyfield/Annandale sites are close to Council's border with the City of Sydney.

Construction impacts will be felt across a large part of the Inner West. There will be a range of individual and cumulative impacts from the wide range of construction facilities and

activities proposed. Whilst most of the facilities would be temporary, some would be permanent - raising further concerns about on-going, longer-term impacts.

It is noted from the EIS that temporary facilities and activities include: site offices; staff and workforce amenities; workshop maintenance; tunnel launch & support; tunnel spoil management; civil & surface works; construction water treatment plant; sedimentation pond; temporary ventilation plant; temporary substation; and parking. Permanent facilities and activities include: ventilation facility; fresh air supply facility; substation; motorway operations complex(es); workshop facilities and bulky equipment store; operational water treatment facility; fire pump room & water tanks.

Council notes from the EIS WestConnex Stage 3 is proposed to be constructed in two stages: Stage 3(a) – construction of the mainline tunnel from Haberfield/Ashfield to St Peters to start in 2018 and be open to traffic in 2022; and Stage 3(b) – construction of the Rozelle Interchange and Iron Cove Link to start in late 2018 and be open to traffic in 2023. The EIS states that building the project in two stages will allow for the Stage 3(a) mainline tunnels to operate independently (initially with two lanes in each direction) prior to the completion of Stage 3(b). Council's main concern with the two-stage construction of Stage 3 is that this does not increase or extend construction or operational impacts on residents.

As a result of Stage 3 being constructed in two parts, the length of the construction period and commencement/conclusion times of the sites will vary. For sites at Haberfield/Ashfield (both options), Darley Road, Annandale/Camperdown, St Peters, The Crescent and Victoria Road, works would be undertaken within the period mid-late 2018 and end of 2022. At the Rozelle and Iron Cove Link sites, works would commence in late 2018, but would not be completed until the second half of 2023.

The EIS states that construction activities for the mainline tunnels (in approximate order of commencement) include: site and construction support facilities establishment; utility works and connections; tunnel construction; portal construction; construction of permanent operational facilities; mechanical and electrical fit-out works; establishment of tolling facilities; site rehabilitation and landscaping; surface road works; demobilisation and rehabilitation; and testing and commissioning.

Construction activities for the Rozelle Interchange and Iron Cove Link include: site and construction support facilities establishment; utility works and connections; tunnel construction; portal construction; construction of surface road works; construction of permanent operational facilities; mechanical and electrical fit-out works; establishment of tolling facilities; site rehabilitation and landscaping; demobilisation and rehabilitation; and testing and commissioning.

It is proposed that tunnelling would involve road headers excavating the two mainline tunnels (each 7.5km), and tunnels for the Rozelle Interchange and Iron Cove Link. Tunnel depths would range from 65m below the surface, with shallower sections of 10-20m below the surface at sub-surface interchange areas and approaching portals. Tunnelling would most likely be undertaken in section, with excavated material (spoil) brought to the surface and loaded into trucks to be taken to disposal sites.

After tunnel excavation is complete, finishing works would begin. These include installation of stormwater and groundwater drainage, pavement construction, line-marking, painting, and installation of electrical pipes, road signage, street lighting and electrical panels. Finally, tunnels would be fitted out with operational infrastructure, including power, lighting, ventilation, fire safety measures, tolling facilities and traffic controls.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers expressing concern about the impact on Inner West residents from the number, staging and variety of Stage 3 construction activities across a large part of the Inner West Council area (CW2).

Council is keen to ensure that lessons learned from Stages 1 and 2 in relation to management of construction impacts result in significant improvements for Stage 3.

There is a need for the shortcomings from Stages 1 and 2 in relation to construction impacts not be repeated for Stage 3. Lessons learned must result in appropriate design changes, stronger conditions of approval, improved management regimes and a more generous and considerate attitude toward affected residents for Stage 3. It is also important to note that mitigation measures should not bring benefits to some residents at the expense of others.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers seeking a significant improvement in management of construction impacts from Stage 3 based on lessons learned from Stages 1 and 2 (CW3).

Recommendation: That Council requests the DP&E to require, prior to any determination, a study of inadequacies in the management of construction impacts from Stages 1 and 2 to inform significantly improved management processes for Stage 3 (CW4).

Council is particularly concerned about the extension of construction impacts on Haberfield/Ashfield and St Peters residents.

Stage 3 construction sites at or near the existing Stage 1 construction sites at Haberfield/Ashfield and St Peters raise particular concerns as Haberfield/Ashfield residents have already endured significant impacts from the construction of Stages 1 and 2.

Haberfield/Ashfield residents had initially anticipated that this would draw to a close as Stage 1 moves to completion. They are now distressed to learn Stage 1 worksites at Walker Avenue and Wattle Street will be used for Stage 3 construction – extending two or more years of impacts for a further three or more years. Although the EIS refers to construction impacts as “temporary”, a continuous construction period of five, six or more years would not feel like a temporary impact to these residents. Should the Western Harbour Tunnel proceed, residents of Rozelle and Lilyfield would also experience extended construction impacts.

Haberfield/Ashfield residents have already been subject to considerable impacts from Stage 1, and extending the construction for a further three years raises serious health concerns. It is thus imperative that if Stage 3 proceeds, DP&E, EPA and NSW Health must investigate all construction-related health issues and work collaboratively to ensure they are addressed in the EIS and that strong, comprehensive conditions of approval are drafted to minimise construction impacts across the project. A health study is recommended elsewhere in this submission.

An issue Council has raised previously in relation to Stage 1 that is relevant to Stage 3 is the current and future impact of WestConnex on residents of five dwellings at 14 to 24 Wattle Street, Haberfield. After suffering years of construction impacts, these residents will suffer operational traffic impacts to a higher degree than most residents in the area. Council seeks mitigation of these impacts to the satisfaction of all owners/residents of these dwellings.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers to express its concerns about continuation of construction impacts on Haberfield/Ashfield and St Peters residents (CW5).

Council is concerned the EIS has not updated baseline environmental information for Haberfield/Ashfield and St Peters sites, nor has it assessed the interaction between Stages 1 and 2 and Stage 3 at these sites.

The Stage 3 EIS should present Stage 1 and 2 predictions and assumptions about Haberfield/Ashfield and St Peters interchanges and surrounds against predictions and assumptions made in M4-M5 EIS. It is apparent that substantial sections of Stage 1 and 2 EISs have been copied into the Stage 3 EIS when dealing with baseline information for Haberfield/Ashfield and St Peters. As a result, the Stage 3 EIS appears to focus on the new construction areas. This makes it difficult for Council and the community to fully assess the construction impacts of Stage 3 and its interaction with Stages 1 and 2 on Haberfield/Ashfield and St Peters areas.

Recommendation: That Council requests DP&E to require, prior to any determination, a reassessment of current baseline environmental conditions for the construction sites at Haberfield/Ashfield and St Peters, and the interaction between Stages 1 and 2 and Stage 3 at these sites (CW6).

Though all construction works have a major impact, Council is particularly keen to ensure that night-works are minimised and conditions of approval and environmental protection licenses are stringent.

The EIS states that most construction work would take place underground, with road headers generally operating 24/7. Construction of tunnel portals, support facilities and most other surface works would be undertaken during standard daytime hours. These hours are 7am-6pm Monday to Friday, 8am-1pm Saturday, with no work generally undertaken on Sundays and public holidays. Where work is required to be undertaken outside these hours, it would be carried out in accordance with conditions of approval and Environmental Protection License conditions.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers to request that that Stage 3 night-works are minimised and conditions of approval and environmental protection licenses are reviewed and made more stringent for all stages of WestConnex (CW7).

Recommendation: That Council requests DP&E to require, prior to any determination, a review of conditions of approval and environmental protection licenses for all stages of WestConnex to ensure they are of the highest standard (CW8).

Recommendation: That Council requests DP&E to include in any conditions of approval stringent requirements to minimise night-works (CW9).

A study of the health effects of construction impacts of Stages 1 and 2 on residents is needed to inform Stage 3.

As was pointed out in Council's submission on the Concept Design, the experience of the Inner West community with WestConnex Stages 1 and 2 has proved that construction activities can have profound negative impacts on individuals and neighbourhoods. This has been a particularly critical issue for residents around the Haberfield/Ashfield and St Peters interchange work sites. Even where construction activities comply with the project's

conditions of approval and environmental licenses, many residents of Haberfield/Ashfield and some residents of St Peters have complained that impacts are intolerable.

The most pressing of these impacts has been noise from night-works, as residents continue to suffer health problems related to stress and sleep deprivation. The impacts have been particularly acute when night-works are undertaken over a long period without adequate respite. In most instances, residents in this position have not been offered alternative arrangements for respite such as suitable alternative accommodation, so have endured impacts over a long period, with health issues resulting.

Council is also concerned that extended working hours and night-works are being driven by RMS imperatives to keep roads open to traffic during the day and financial incentives for contractors to complete project milestones on time - without regard for impacts on residents.

Under-reporting of health issues is likely, as residents speak of “complaint fatigue” – where they feel their repeated complaints have not resulted in positive responses. They eventually stop complaining and endure the impacts in silence. For some residents language has been barrier to making complaints, and under-reporting has arising from a proportion of complaints not being officially registered, e.g. verbal complaints to project construction staff.

The response by the proponent on health issues created by Stage 1 and 2 constructions has not been adequate, nor has the response from NSW Government agencies responsible for compliance and the health and well-being of Sydney’s residents – DP&E, EPA and NSW Health.

Recommendation: That Council requests DP&E to require, prior to any determination, an independent health study of Haberfield/Ashfield and St Peters residents affected by Stage 1 and 2 construction sites. Study to be overseen by NSW Health and used to inform any Stage 3 conditions of approval (CW10).

Recommendation: That Council requests the DP&E to include in any conditions of approval a requirement to appoint a dedicated health case worker to monitor and assist with amelioration of construction health impacts for all stages of WestConnex (CW11).

Recommendation: That Council requests DP&E to include in any conditions of approval a requirement for no construction work (including spoil removal) be to be permitted out-of-hours, with a night-time curfew imposed on all work from 11pm until 6am. Further, that the more up-to-date conditions and licensing terms applied to the Sydney Metro (rail) project should be applied to Stage 3, should it proceed, and retrospectively applied to Stages 1 and 2 (CW12).

Recommendation: That Council requests DP&E to include in any conditions of approval a requirement that RMS road occupations be allowed from 7pm onward to assist with implementation of the night-work curfew (CW13).

Council seeks improved co-ordination of project-related utilities works to reduce cumulative construction impacts.

Experience with Stages 1 and 2 has shown that cumulative have been a major issue for residents. These have arisen primarily from a vast range of utility relocation works necessitated by WestConnex being undertaken at the same time as project works, or during periods when residents might otherwise enjoy respite. Whilst project works are ‘contestable’ in that they must comply with the project’s conditions of approval, the utilities works are ‘non-contestable’ as they are formally not part of the project.

In addition to utilities works, geotechnical investigation works for various stages of WestConnex have added to the cumulative impact problem. Although necessitated by the core project, these works are also non-contestable in that they are permitted by the NSW Roads Act are not guided by conditions of approval. There have been several instances in Haberfield/Ashfield and St Peters residents have complained about intolerable impacts from project works, utilities works and geotechnical investigation works being undertaken simultaneously.

There have been utilities and other works not at all related to WestConnex that have added to cumulative impact issues in Haberfield/Ashfield and St Peters. These have included emergency utilities works and routine utilities and Council road/footway maintenance works. For example, residents near Campbell Street at St Peters recently endured night-time impacts from emergency repairs by Sydney Water to ageing water supply infrastructure. Though not related to WestConnex, this had a significant impact on residents already fatigued by WestConnex works.

Recommendation: That Council requests DP&E to include in any conditions of approval a requirement to appoint a utilities manager with enforcement powers to co-ordinate project and utilities works so that cumulative construction impacts on residents around worksites are minimised (CW14).

Council seeks improved co-ordination between State agencies and improved complaints procedures in relation to construction activities.

The effectiveness of enforcement has been hampered by the fact that contestable works are enforced by the DP&E (responsible for conditions of approval) whilst non-contestable works are enforced by EPA through specific licenses or generic legislation such as the NSW Protection of the Environment Operations Act 1997.

The splitting of these functions has meant that complaints handling has been complex and not as effective as it might have been if a single agency assumed all enforcement responsibilities. In most instances residents have not been able to distinguish between contestable and non-contestable works (nor should they be expected to) so have unwittingly not followed correct complaints procedures.

Recommendation: That Council requests DP&E to require, prior to any determination, a review that strengthens and simplifies monitoring and complaints procedures between DP&E, EPA and the proponent (CW15).

There is a need for the NSW Government to increase resources for compliance monitoring.

A further construction issue for Stages 1 and 2 has been lack of NSW Government compliance resources for this very large, high-impact project. Responding to advocacy by Council on this matter in early-mid 2016, the DP&E has created a full-time WestConnex compliance officer position, and that officer has been working from Council offices part-time. This has been positive, but one part-time position is not sufficient, particularly as that officer will (should Stage 3 proceed) need to cover all three stages of WestConnex.

Council has also been concerned that the compliance resources within EPA have also not been adequate, and that there has not been sufficient input from other relevant agencies – particularly NSW Health – in minimising the impacts on residents described above.

Recommendation: That Council requests DP&E to require, prior to any determination, adequate DP&E and EPA compliance resources with the capacity and authority to intervene, supervise & prosecute (CW16).

There is a need for an assessment of the cumulative noise impacts from overlapping noise envelopes.

A further cumulative construction impact issue has been overlapping of noise envelopes from project works from several construction areas – a particular issue for Haberfield/Ashfield residents located between several project work sites. It would appear the conditions of approval have considered the impacts of each work site in isolation without considering how noise, vibration and other impacts add together to become unacceptable. For Stage 3, this is an important issue for the Rozelle/Lilyfield/Annandale construction sites due to the number of construction sites and construction activities underway simultaneously within one area.

Recommendation: That Council requests DP&E to require, prior to any determination, an assessment of Stage 1 and 2 cumulative noise impacts from overlapping noise envelopes - to guide relevant construction management plans for Stage 3 (CW17).

There is a need for stronger conditions, enforcement of conditions and a willingness to implement best-practice construction management procedures.

The cumulative impact issue has been exacerbated by works that may have breached conditions of approval, such as works extending slightly beyond approved hours - or where breaches are not clear due to imprecisely-worded conditions of approval. As an example of the latter issue – it has not been clear that idling of trucks in residential streets (due primarily to lack of marshalling areas) has constituted a breach, even though this has had a major impact on residents.

There has been at times a lack of willingness by SMC and/or project contractors to undertake best practice (beyond simple compliance) and deal with residents with a spirit of generosity in addressing cumulative impact issues. Council is particularly concerned that this lack of generosity may be the result of an inadequate funding set aside to assist affected residents - for example, to voluntarily acquire properties (at a fair price) or pay for alternative accommodation where impacts become intolerable.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers to express its concerns about lack of willingness of SMC and its contractors to adopt best-practice in managing construction impacts (CW18).

There is a need for an assessment of background environmental factors that contribute to cumulative impacts.

There are a number of background environmental factors that have added to cumulative impacts – such as noise and air pollution from general vehicular traffic and aircraft. For residents living along heavily-trafficked Wattle Street and Dobroyd Parade at Haberfield, WestConnex had added to air and noise impacts that these residents already have endured for years. Similarly, for St Peters residents, WestConnex has added to the noise and air quality impacts they have endured for years from Sydney Airport flight paths.

Recommendation: That Council requests DP&E to require, prior to any determination, an assessment of background environmental factors that contribute to cumulative impacts (CW19).

There is a need for significant improvement in the management of employee parking around construction sites.

Since construction of Stages 1 and 2 began, Haberfield/Ashfield and St Peters residents have continued to complain about kerbside parking pressures created by WestConnex construction. Whilst SMC has made some effort to address parking issues through actions such as creation of dedicated car parks, Haberfield/Ashfield residents have recently expressed their dismay that some of these car parks are largely unused, being located away from construction sites. There appear to be no penalties or incentives to encourage employees to use these facilities.

It is apparent to Council that conditions of approval for Stages 1 and 2 related to parking are vague and unenforceable. If Stage 3 proceeds, stronger conditions of approval (with penalties and incentives) are needed to enforce good-practice parking management. This is particularly important for Stage 3 areas, as the density of development and parking demand is generally greater than for Stage 1 and 2 areas.

Although employee parking demand would be expected to be an issue around most of the Stage 3 construction sites, parking pressures are expected to be greatest around the Darley Road site. This is because surrounding residential areas are densely-developed, there is little opportunity to park on the construction site, there are few other parking opportunities and the project would result in the loss of around 20 spaces. There are no details in the EIS of how parking demands from the project can be accommodated for this site.

Strictly enforced worker parking management would be needed, in association with temporary resident parking schemes. This would include requirements for employees to park elsewhere, such as at the RRY site, and access the Darley Road site by light rail to the Leichhardt North light rail stop.

For all sites - particularly the Darley Road site - consideration should also be given to kerbside parking measures that will prohibit trucks parking on residential streets waiting for access to the construction sites. This would not only reduce parking pressures, but avoid noise and diesel emission impacts from trucks that park with their engines running.

This will need to be a consideration in the development of relevant construction traffic management plans. Other ways of reducing project truck parking impacts include enforceable licencing conditions for sub-contractors and specific kerbside parking controls such as *No Parking – vehicles under 5m excepted*.

Recommendation: That Council requests the DP&E to require, prior to any determination, development of parking management plans for all Stage 3 construction sites (with a focus on Darley Road) in consultation with Council and affected communities. Parking management plans to be strictly enforced and include incentives and penalties (CW20).

An assessment is needed of Haberfield/Ashfield construction Options A and B to determine which option has the least impact on residents.

For Haberfield/Ashfield, the EIS provides two options for the location of construction sites. Option A would essentially retain Stage 1 sites Wattle Street, Haberfield and Northcote Street use by Stage 3. Option B would essentially retain Stage 1 sites Parramatta Road West and Haberfield, but would create a new site Parramatta Road East. Creation of the new site would require acquisition of a commercial property on Parramatta Road.

In general terms, Option A would result in a continuation of construction impacts in the Wattle Street / Northcote Street area in Haberfield, whilst Option B would shift the impacts to the south to the area around Walker Avenue Haberfield and around Alt Street at Haberfield and Ashfield. The EIS has not made clear whether there will be continuous use of Stage 3 exit/entry ramps along Wattle St between Parramatta Road and Ramsay Street. Continued use of these ramps would cause continued impacts for residents who have already endured significant impacts regardless of whether Option A or B is chosen.

Although both options are unsatisfactory in terms of impacts on resident, Council's preference would be for the option that results in a lower level of impacts on residents overall - with special consideration to residents that have endured the greatest impacts from Stage 1 construction to date. It would appear at this stage that this could be achieved through limited surface works and use of the Wattle Street portals as the prime access for tunnel construction.

Notwithstanding, the EIS does not provide an assessment of impacts in a way that would allow a conclusion to be reached about which of the options would be preferred on the basis of the lowest impacts. It is also concerning that the proponent may choose a construction option that is some combination of Options A and B, or worse still, using all sites across both options, with no guarantee that this choice is aimed primarily at minimising impacts on residents.

The EIS is vague and it appears the proponent seeks to have all options available. A further assessment is needed that explains worst case impact scenarios of all options under consideration – including hybrid options and full use of all sites. Regardless of which option is chosen, a night-time curfew should operate, so that no tunnelling, trucking or other work occurs after 10 pm.

Recommendation: That Council requests DP&E to require, prior to any determination, an assessment of the construction site options for the Haberfield/Ashfield sites that aims minimising impacts on surrounding residents, particularly those who have been worst affected by Stage 1 construction. Assessment to investigate options to maximise below-surface construction work to reduce noise impacts (CW21).

Recommendation: That Council requests DP&E to include in any conditions of approval a night-time curfew on all works (including tunneling) at all Haberfield/Ashfield construction sites in recognition of impacts endured to date and overlapping (cumulative) impacts from Stages 1 and 3 (CW22)

Council is concerned about the impact on the Ashfield town centre of construction trucks using the Hume Highway.

For the Haberfield/Ashfield construction sites, the EIS states that spoil pick up from the newly-acquired Parramatta Road West site on 24/7 basis, with spoil truck routes yet to be determined. However, as indicated in the EIS, a preliminary assessment of approach routes would have some 140 trucks per day using Centenary Drive – Hume Highway – Parramatta Road.

This route would bring these vehicles along Liverpool Road (Hume Highway through the Ashfield town centre, Enfield shops, Homebush South shops, Burwood South shops, two child care centres/pre-schools, four schools, four religious centres/churches, one hospital and an aged housing facility.

Recommendation: That Council requests the DP&E to include in any conditions of approval a requirement that construction trucks servicing any of the Stage 3

construction sites are not to use Liverpool Road (Hume Highway) because of impacts on Ashfield town centre, other shopping centres and other sensitive uses (CW23).

Need to consider the altered noise profile for Stage 3 from works undertaken for Stage 1 at Haberfield/Ashfield and overlap between Stages 1 and 3.

Importantly for the Haberfield/Ashfield construction sites, consideration of current levels of ambient noise has not been included. It is important to measure current levels as noise profiles have changed (increased) since commencement of construction of Stage 1 due building demolitions and removal of vegetation. Also at the Haberfield/Ashfield sites, there will be an overlap between construction of Stages 1 and 3, but this has not been adequately acknowledged and assessed in the EIS.

Recommendation: That Council requests DP&E to require, prior to any determination, an assessment of changes to Haberfield/Ashfield construction site noise envelopes attributable to changed conditions from Stage 1 construction and the cumulative noise impact of overlapping Stage 1 and Stage 3 construction. (CW24)

Need to consider the long-term impacts of vibration on buildings, particularly at the Haberfield/Ashfield construction sites.

Council is also concerned that for Haberfield/Ashfield there has been no consideration of longer-term cumulative impacts of vibration from construction on local buildings. This is a particular issue at this location due to the extent of the construction period.

Recommendation: That Council requests DP&E to require, prior to any determination, an assessment of the long-term vibration impacts on buildings, with a focus on Haberfield/Ashfield construction sites (CW25).

Need for improved management of road closures and diversions.

A more comprehensive approach to street closures is needed, as Haberfield/Ashfield residents have experienced many seemingly ad-hoc road closures and diversions implemented at short notice, with several of these having major implications for local residents and businesses. A blanket speed limit reduction around all construction sites of 30 or 40kph is also warranted, particularly on streets with residential and school uses.

Recommendation: That Council requests the DP&E to require in any conditions of approval provisions for improved management of road closures and diversions and longer lead-times for notification. Posted speed limits around all construction sites to be reduced (CW26).

There is a need to improve construction notification procedures.

Residents have complained about inadequate lead times between notices being issued and the commencement of works. There have been instances where residents have been notified by leaflet distribution, but the notice has not been posted on the SMC website, leading to the situation where residents express their concerns to Council about forthcoming works to be told that Council has no knowledge of the matter. Council has repeatedly advocated to SMC the importance of all notices being posted on SMC's website in a timely manner so that Council and the wider community is kept informed.

Council is well aware of the processes that have been established to co-ordinate WestConnex construction activities between councils, State agencies, SMC and project contractors. However, Council's experiences with Stages 1 and 2 show there is much room

for improvement. For example, Council has received several reports from Haberfield/Ashfield and St Peters residents of inconsistent information being disseminated by SMC and its contractors and inconsistent responses to complaints. In relation to project-related roadway changes such as the closure of Ramsay Street at Haberfield, there have been reports of inaccurate signage and Sydney Buses drivers being unaware of changes.

Recommendation: That Council requests the DP&E to require in any conditions of approval measures to improve co-ordination of dissemination of community information, adequate lead times for notices and immediate availability of all notices on the proponent's website (CW27).

Need to improve monitoring and enforcement of dedicated construction traffic routes.

Council has received many reports about project trucks departing from routes defined by conditions of approval and travelling along local residential streets – with resultant noise and traffic safety impacts. In some instances, project trucks have been reported travelling past and parking near primary schools in Haberfield (in breach of conditions) creating a traffic safety hazard. Simple measures to improve enforcement include easy-to-read identification numbers on project trucks and employment of a dedicated traffic-monitoring officer for the project.

Recommendation: That Council requests the DP&E to require, prior to any determination, development of measures to improve monitoring of construction truck traffic to minimise noise and safety impacts, including identification of project trucks and appointment of a dedicated traffic monitoring officer (CW28).

Need to improve truck marshalling arrangements and assess the impact of routes between marshalling areas and construction sites.

As has been discussed elsewhere in this submission, inadequate truck marshalling and queuing arrangements has created noise and traffic safety impacts. Residents of Haberfield/Ashfield and suburbs further afield have complained about what has appeared to be ad-hoc marshaling of trucks in residential streets, with sleep disturbances suffered from truck engines idling in the early morning period.

Lack of marshaling arrangements has led to circling of trucks around Haberfield/Ashfield streets and queuing of trucks on Parramatta Road at Haberfield/Ashfield as drivers await clearance to enter construction sites. This has raised noise and traffic safety issues. Council is aware that DP&E compliance staff have taken formal action on Parramatta Road queuing issues.

Given these Stage 1 issues, residents in the Stage 3 area are anxious about similar poorly-managed truck marshaling in their suburbs. Council has written several times to the DP&E to raise these issues, suggesting that the DP&E develops strong conditions of approval to ensure marshaling areas are provided and are well-managed.

Council is also concerned about trucks using residential streets to travel between marshaling areas and construction sites. If the RRY site is used for marshaling as is expected, trucks are likely to use Johnston Street to access the Bridge Road construction site. The high frequency of truck movements, coupled with sensitive uses along Johnston Street (schools, residential areas and local shops) would result in unacceptable conflicts.

Recommendation: That Council requests the DP&E to require, prior to any determination, a detailed assessment of truck marshaling arrangements for Stage 3

that includes marshaling locations, hours of operation and routes to/from construction sites (CW29).

Council is concerned about congestion and road safety risks created by construction trucks travelling in peak traffic periods and school travel periods.

For all construction sites, there is the potential for truck conflicts with other motor vehicles and bicycles on any road, and conflicts with pedestrians at pedestrian crossing and wherever trucks cross footpaths. Risks of these conflicts are at their greatest during the morning peak traffic periods and school travel periods. For this reason, working hours will need to avoid peak traffic periods, particularly where school travel safety issues are raised.

Recommendation: That Council requests the DP&E to include in any conditions of approval a requirement that construction truck movements avoid peak traffic periods and peak school travel periods. This is to reduce traffic congestion and avoid road safety risks (CW30).

There is a need to increase extent of Council's input into traffic & transport liaison groups to improve construction traffic management.

Council's traffic management staff that have been involved in traffic & transport liaison groups for WestConnex Stages 1 and 2 have sought increased involvement by Council. These staff have recommended to relevant conditions for the Sydney Metro (rail) project as a guide.

Recommendation: That Council requests the DP&E, prior to any determination, to consider use of Sydney Metro (rail) conditions of approval related to the establishment of a traffic and transport liaison group for Stage 3 (CW31).

Need to consider cumulative impacts from other construction activities in areas around WestConnex construction sites.

Stage 3 cumulative impacts could be expected from the combination of WestConnex with construction of development within the Bays Precinct, Balmain Power Station site, industrial developments/activity along James Craig Drive and possibly the Western Harbour Tunnel. This is in addition to a multitude of smaller commercial and residential redevelopments underway across the Inner West.

Recommendation: That Council requests the DP&E to require, prior to any approval, an assessment of cumulative impacts from construction activities within the Bays Precinct, Balmain Power Station site, along James Craig Drive and possibly construction of the Western Harbour Tunnel (CW32).

Council has several serious concerns about the 7 Darley Road construction site.

A civil and tunnel site, or 'mid-tunnel construction dive-site', is proposed for 7 Darley Road at Leichhardt. This site would be established primarily to support tunnelling, but would also accommodate permanent facilities, including a water treatment plant and substation. Road headers would be launched from this site and would excavate the temporary access tunnel and mainline tunnels.

Under the system proposed by the EIS, construction traffic would enter the site from the southern (westbound) carriageway of Darley Road via new temporary driveways. Temporary traffic diversions and removal of some kerbside parking along Darley Road would

likely be required, as would the closure of the footpath on the northern side of Darley Road near the site. Traffic management would be implemented at key locations.

Council and local residents have been particularly concerned about impacts from this site due to its location within a densely-developed residential area and creation of unacceptable road safety risks around the site. Truck access to the Darley Road site involves negotiation of a steep, curving and heavily-trafficked intersection with City West Link Road, which has limited sightlines in Darley Road. At this intersection is a well-used signalised pedestrian crossing that provides access to the Leichhardt North Light Rail Stop. A particular road safety issue is the potential for conflicts between trucks, pedestrians, cyclists and general traffic.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers to express concerns about use of 7 Darley Road Leichhardt as a Stage 3 construction site as it raises many issues, including traffic safety, noise and dust impacts (CW33).

A detailed road safety audit is needed for the Darley Road site.

Darley Road is a known accident 'blackspot' area. The movement of construction trucks and other construction vehicles will create an unacceptable risk of conflicts with vehicles on Darley Road and City West Link Road. It will also create risks for pedestrians walking along Darley Road and crossing that road to access the Leichhardt North light rail stop. Pedestrian and cyclist traffic is also frequent due to the area providing access to Blackmore Oval, the Bay Run path, Leichhardt Aquatic Centre, the Canal Road industrial area and Richard Murden Reserve.

Recommendation: That Council requests the DP&E to require, prior to any determination, a detailed traffic safety audit for the Darley Road construction site for all road users. Study to include examination of traffic volumes and crashes, and include an audit of traffic safety risks (CW34).

A further assessment is needed of alternative sites to Darley Road that result in lower impacts on residents overall.

Throughout 2016-17 Council has supported local residents and community groups in raising issues about this site and expressing opposition to the two Stage 3 mid-tunnel dive-sites – Darley Road and Pymont Bridge Road. Council has expressed a preference that there be no mid-tunnel dive-sites for Stage 3, recognising that if this were to be the case, all spoil would need to be removed from portals at Haberfield/Ashfield and the RRY site over a longer construction period.

Council has consequently argued that a site at the western end of the RRY site could potentially offer a lower-impact alternative to the Darley Road, Bridge Road and no dive-site options. Accordingly in early 2017, Council commissioned independent consulting engineer James Holt to report on alternative options, and the report is at **Attachment 2**.

The report confirmed that the RRY site was potentially a lower-impact option compared to Darley Road, and could technically be implemented. However the report also raised a number of queries about future use of the site, which Council had relayed to SMC in a letter at **Attachment 2**. Council sought further information about future use of the site, and the degree to which the light rail stabling would prevent access by project trucks. Council had referred these queries to SMC, and the response is at **Attachment 2**.

SMC's response has not in Council's view adequately explained why this site has not been used. Contrary to SMC's comment about access difficulties, it would appear that truck

access to the RRY site has not been severed (nor likely to be severed) despite the light rail stabling area being established. Council agrees with SMC that the RRY site (western end) would involve a longer access tunnel than for the Darley Road site, but this was not seen by Council's independent engineer to be a significant disadvantage, particularly as the longer access tunnel would benefit from a gentler grade.

Recommendation: That Council requests the DP&E to require, prior to any determination, a further assessment of the Rozelle Rail Yard site (western end) and any other potential sites, as an alternative to the 7 Darley Road site - on the basis of potentially lower impacts overall (CW35).

There is a need to investigate alternative spoil handling and transport and site access options for the Darley Road site to reduce impacts.

For transport of spoil from the Darley Road site, there may be an opportunity to use an acoustically shielded conveyor belt to transport spoil to Iron Cove so it can be transported by barge. Some of the spoil may also be appropriate for re-use in concrete for the Bays Precinct Redevelopment via the proposed Glebe Island concrete batching plant.

To reduce the number of vehicle movements, spoil could be dried and/or crushed on-site to reduce its weight and volume, and elements of spoil could be re-used within the tunnel for shotcrete. This would reduce the amount of raw material that would need to be transported (possibly to the proposed Glebe Island concrete batching plant) thus reducing the Bays Precinct redevelopment's demand for depleting silica sand resources used in concrete production. This would also reduce heavy vehicle traffic around the Bays Precinct. Glebe Island also provides an opportunity to load non-useable spoil onto barges (instead of trucks) for transport further afield.

If use of barges proves to be infeasible, the proponent should investigate the option of creating an exit ramp and loading area from the westbound kerbside lane of City West Link Road into an area between City West Link and the light rail line, immediately to the west of the Leichhardt North Light Rail Stop, to provide truck access to the Darley Road site. In this way, trucks would not need to access Darley Road at all.

This option would also involve marshalling of empty trucks in the RRY site and spoil being conveyed, using an acoustically shielded conveyor belt over the light rail line, to overhead hopper(s). Trucks would load from the hopper and re-enter the City West Link Road immediately to the north of Charles Street. As there is a grade difference between the vacant land adjacent to the light rail line and City West Link, it may be necessary to construct an elevated platform/pad to create an appropriate loading area.

Recommendation: That Council requests the DP&E to require, prior to any determination, a further assessment of the potential to reduce number of construction truck movements by drying and/or crushing of spoil on-site to reduce its weight and volume, and by re-using spoil in tunnel shotcrete for the project (CW36).

Recommendation: That Council requests the DP&E to require, prior to any determination, an assessment of the potential to transport spoil from the Darley Road construction site by sealed conveyor belt to the Glebe Island concrete batching works for re-use, with non-useable spoil further transported by barge (CW37).

Recommendation: That Council requests the DP&E to require, prior to any determination, an assessment of the potential to create an exit ramp and loading area for spoil trucks from the left-lane of City West Link Road westbound into an area between City West Link and the light rail line. Spoil would be conveyed from the

acoustic shed to trucks using a shielded conveyor belt over the light rail line to overhead hoppers (CW38).

As the proposed acoustic shed at the Darley Road site is elevated in relation to dwellings to the south of the site, there is the potential that noise from loading of spoil within the shed will create a significant noise impact on residents. Given the density of residential development around the site, a high number of residents will be affected by the noise, including out-of-hours noise. For this reason, the acoustic shed at this location will need to be constructed in a manner which ensures noise is fully contained, possibly requiring a double door system or air lock.

Recommendation: That Council requests the DP&E to include in any conditions of approval a requirement that the acoustic shed on the Darley Road construction site be designed to minimise noise impacts on nearby residents (CW39).

A further concern about the Darley Road site is that contrary to previous indications, a substantial portion of the site will not be returned to the community, but will become permanent tunnel support infrastructure. Given the proximity and density of residential development around the site it is important that the extent and environmental impact of this infrastructure be minimised.

Recommendation: That Council requests the DP&E to include in any conditions of approval a requirement to minimise the extent and environmental impact of all permanent motorway support infrastructure (CW40).

Council has concerns about the Pymont Bridge construction site, and seeks to have the site returned to a 'biomedical hub' use post-construction.

The Pymont Bridge Road tunnel site is proposed to be located between Parramatta Road and Pymont Bridge Road at Annandale. Like Darley Road, it is a 'mid-tunnel construction dive-site'. It would be established on land currently occupied by commercial and light industrial businesses, which are being compulsorily acquired. No permanent facilities would remain after the site had been used for Stage 3 construction. The site would be returned to a form of commercial use compatible with its location within the 'biomedical hub' precinct as identified by the NSW Government's *Parramatta Road Urban Transformation Strategy*. Though Council remains opposed to all Stage 3 dive-sites, it supports the return of the site to an appropriate 'biomedical hub' use.

Recommendation: That Council requests DP&E to require in any conditions of approval a requirement that the Pymont Bridge Road tunnel site be developed for 'biomedical hub' uses consistent with the draft Parramatta Road Urban Transformation Strategy (CW41).

There is a need for a road safety audit for the Pymont Bridge Road construction site to ensure conflicts between construction trucks, buses, cyclists and pedestrians are minimised.

Truck access to the site would be from the City-bound kerbside lane of Parramatta Road. Vehicles would enter via a new temporary driveway, travel in an anti-clockwise direction via an internal access road and exit the site onto Pymont Bridge Road via a new temporary signalised intersection. Despite the fact that minimal modifications to the existing road network would be needed, Council has concerns about walk/cycle diversions around site entry/exit points and potential conflicts between project trucks, buses, cyclists and pedestrians wherever trucks cross the paths of these other road users.

Recommendation: That Council requests the DP&E to require, prior to any determination, a road safety audit for Pymont Bridge Road site to minimise conflicts between construction trucks, buses, pedestrians and cyclists at the entry and exit points of the site (CW42).

There is a need for an assessment of 'go-around' procedures for construction trucks accessing the Pymont Bridge Road site.

Experience with construction trucks accessing Haberfield/Ashfield sites from Parramatta Road has shown that issues with on-site management can result in empty trucks travelling very slowly in the kerbside lane when the loading area is already occupied, to avoid being sent around the block. This inhibits traffic flow in the kerbside lane, delaying buses and compelling some drivers to make hazardous manoeuvres at short notice.

It is noted that the proposed Annandale/Camperdown site has no suitable 'go-around' route as the left turn from Mallet Street to Pymont Bridge Road and the left turn from Pymont Bridge Road to Parramatta Road cannot be negotiated by the likely construction vehicles. Layton and Barr Streets are too narrow to accommodate left turns, and large vehicles also cannot negotiate the left turn from Parramatta Road to Ross Street and Glebe Point Road is unsuitable for heavy vehicles.

Recommendation: That Council requests the DP&E to require, prior to any determination, an assessment of 'go-around' procedures for construction trucks accessing the Pymont Bridge Road site (CW43).

There is a need to assess the traffic impacts of construction trucks turning to/from City West Link Road to The Crescent.

Should trucks accessing the Annandale/Camperdown site be stabled in the RRY site, the likely route to the Camperdown site would be via Johnston Street. The level of impact identified in the EIS does not appear to take into account the limited acceleration rates of fully-laden heavy vehicles, or the delay associated with right turning of fully-laden trucks exiting the RRY site turning from the City West Link Road into The Crescent.

Though the EIS seems to indicate very small increases in traffic delays from these kinds of movements, it has been observed from Stages 1 and 2 that construction trucks can significantly impede traffic flow, particularly when running in kerbside lanes. Potential use of Johnston Street by project trucks also raises concerns for Council due to the residential nature of this street, which includes schools and the Annandale neighbourhood shopping centre.

Recommendation: That Council requests the DP&E to require, prior to any determination, an assessment of the impact of construction trucks turning to/from City West Link Road to The Crescent in the event that route is used (CW44).

There is a need to minimise noise and dust impacts from the Pymont Bridge Road construction site on nearby dwellings, a nearby school and sensitive commercial uses.

Though the site is surrounded primarily by commercial uses, there is the potential for significant noise, dust and other impacts on nearby sensitive uses, i.e. five dwellings located at 67 to 77 Pymont Bridge Road and the Bridge Road school at 127 Parramatta Road directly opposite the site. There is also the potential for site activities to negatively affect sensitive commercial and healthcare uses, e.g. dust impacts on brewery adjacent to the site.

Careful site management and physical buffering will be needed to protect these sensitive uses.

Recommendation: That Council requests the DP&E to include in any conditions of approval measures to minimise noise and dust impacts on dwellings at 67-77 Pymont Bridge Road, Annandale, the Bridge Road school at 127 Parramatta Road, Camperdown and other sensitive commercial and healthcare uses in the vicinity (CW45).

Council objects to removal of part of Bignell Lane as part of the creation of the Pymont Bridge Road construction site.

Recommendation: That Council requests the DP&E to include in any conditions of approval a requirement to redesign the Pymont Bridge Road construction site to retain Bignell Lane (CW46).

Noise and dust buffering of dwellings near the Stage 3 St Peters Interchange construction site will be needed.

The Campbell Road civil and tunnel site would be located within the St Peters Interchange site on the southern side of Albert Street and Campbell Road in St Peters – partly within the City of Sydney council area and partly within the Inner West council area. This site would use land currently being used as a Stage 2 construction site.

The site would primarily be put to temporary use to support mainline tunnel excavation and ramp construction to connect Stages 2 and 3. A portion of the site would be used permanently for motorway management and ventilation facilities, whilst uses for the remainder of the site would include community open space and associated facilities. Minimal modifications to the road network or walk/cycle facilities would be needed to establish and operate this site, although there would be temporary walk/cycle diversions around key heavy vehicle entry/exit points.

Construction at this site essentially involves continued use of part of the St Peters Interchange site, which raises concerns for Council about ongoing impacts on nearby dwellings on the northern side of Campbell Street and the southern end of Barwon Park Road and Crown Street, St Peters. This is particularly as residents in this location have endured impacts from Stage 2. Noise and dust buffering will continue to be needed to protect these dwellings.

Recommendation: That Council requests the DP&E to include in any conditions of approval noise and dust mitigation measures to protect dwellings near the Stage 3 Campbell Road construction site, including dwellings on the northern side of Campbell Street and the southern section of Barwon Park Road and Crown Street, St Peters (CW47).

Council would like to reiterate the concerns raised about the St Peters Interchange site in the submission by former Marrickville Council on the Stage 2 EIS.

Most of the comments made by the former Marrickville Council in its February 2016 submission on Stage 2 on the design construction impacts of the St Peters interchange site are relevant to the Stage 3 EIS given construction will continue on this site. This submission is available on [Council's website](#).

Key concerns raised in the former Marrickville submission include: use of the site for WestConnex not being productive use of the land; the expansive design of the interchange

creating isolated spaces; the need to reduce the number and extent of motorway service facilities; impacts on individuals and households from compulsory acquisitions; construction impacts (predominantly dust and noise) on the health of nearby residents; cumulative impacts from other projects, e.g. creation of the Sydney Metro rail stabling area at St Peters; cumulative impacts from background impacts, e.g. noise & air emissions from Sydney Airport flight paths; parking impacts in St Peters area; biodiversity impacts from clearing the site; need for quality design of residual lands; and impacts of road and footpath closures and diversions during construction.

Recommendation: That Council requests the DP&E to require, prior to any determination, an assessment of concerns raised about the St Peters Interchange site in the submission by former Marrickville Council on the Stage 2 EIS (CW48).

There is a need to assess the cumulative impacts of the four construction sites proposed for the Rozelle/Lilyfield/Annandale area.

The EIS proposes four construction sites in the Rozelle/Lilyfield/Annandale area. These are the Rozelle civil & tunnel site, The Crescent Civil site, the Victoria Road civil site and the Iron Cove Link civil site. These sites are required to support construction of the Rozelle Interchange and Iron Cove Link. Not only is Council concerned about impacts from each of these sites, but also the cumulative impacts given all four sites are within close proximity to each other and area surrounded by densely-developed residential areas, schools and other sensitive uses.

Recommendation: That Council requests the DP&E to require, prior to any determination, an assessment of the cumulative impacts of construction across the four Rozelle/Lilyfield/Annandale construction sites (CW49).

There is a need to assess the traffic impact of construction truck access to the Rozelle sites.

The Rozelle civil and tunnel site would be mainly located on the RRY site. Temporary construction facilities and activities on this site would primarily support tunnelling to create the Rozelle Interchange, Iron Cove Link and connections to the proposed Western Harbour Tunnel. After construction, permanent facilities would remain on the site, including ventilation facilities, a motorway control facility, electrical sub-stations and water treatment areas.

Project truck access to the Rozelle site would be via City West Link Road via new temporary slip lanes and driveways. This main concern raised is the impact of these access points on traffic flow on the congested City West Link Road.

Recommendation: That Council requests the DP&E to require, prior to any determination, an assessment of the traffic impacts on City West Link Road of construction trucks accessing the Rozelle construction site (CW50).

For The Crescent construction site, there is a need to ensure noise, dust, pedestrian access impacts on adjacent parks, marina, bay and light rail stop are minimised.

The Crescent civil site would be established immediately adjacent to Rozelle Bay and Whites Creek and would support construction activities (including bridge reconstruction and drainage works) in and adjacent to these waterways. Project trucks would enter the site via a left turn from The Crescent southbound and exit back onto The Crescent northbound via a right-turn.

Potential issues raised for Council in relation to this site are noise and access impacts on the adjacent marina and Federal Park, inclusion of Buruwan Park within the site boundary and potential impacts; traffic impacts of construction on already-congested intersections at City West Link Road and The Crescent and Johnston Street and The Crescent, and the potential for sediment pollution of Rozelle Bay.

Recommendation: That Council requests the DP&E to include in any conditions of approval measures to mitigate noise and dust impacts on the adjacent marina and Federal Park, minimise occupation of Buruwan Park and ensure no sediment or other pollutants enter Rozelle Bay (CW51).

There is a need to ensure that walk/cycle connectivity around the Victoria Road construction site is not severed.

The Victoria Road civil site would be created by the demolition of existing buildings and other structures on the site to establish temporary site offices, a laydown area, workforce amenities and car parking. After construction, a portion of this site would become operational road infrastructure.

No particular issues are raised for Council by this site, but it would add to cumulative noise and traffic impacts in the area. Council is also concerned that use of the site post-construction to expand road capacity will have negative impacts on walk/cycle connectivity at that location.

Recommendation: That Council requests the DP&E to include in any conditions of approval requirements to ensure the Victoria Road construction site does not sever walk/cycle connectivity past this site – at both the construction and operational stages (CW52).

For the Iron Cove construction site, there is a need to minimise noise and dust impacts, assess road access arrangements and minimise walk/cycle diversions.

The Iron Cove Link civil site would mainly be used to support surface works for the Iron Cove Link, including tunnel portals and modifications to Victoria Road. Temporary site facilities would include offices, workshop, storage, water treatment, substation, worker facilities and parking. Post-construction, part of the site would be permanently occupied by a motorway management and ventilation facilities.

The Victoria Road site raises concerns about noise, dust, traffic and parking impacts on densely-developed residential areas surrounding the site. Numerous single-storey dwellings on the western side would be located directly adjacent to the site, and whilst these could be protected by noise barriers, multi-storey dwellings on the eastern side of the site could not be protected in this way.

Council is also concerned that proposed temporary and permanent closures of streets between Victoria Road and King George Park would create access difficulties for residents and park users. Proposed temporary walk/cycle path diversions are a further concern given proximity of this site to the Bay Run path and the high volume of pedestrian and cyclist traffic that use footpaths along this part of Victoria Road.

Recommendation: That Council requests the DP&E to include in any conditions of approval measures for the Iron Cove construction site to protect residents on both sides of Victoria Road from dust and noise impacts, suitable access arrangements between Victoria Road and King George Park and minimisation of pedestrian and cyclist path diversions around the site (CW53).

Beca's assessment highlights the lack of detailed information in the EIS necessary to assess construction impacts.

Beca's has raised concerns about the EIS providing only an assessment of *probable* construction methodologies, while retaining flexibility for the contractor to refine the construction methodology following their appointment. Little detail on construction methods is presented in the EIS it is *indicative* only, and will be subject to further detailed development by the design and construction contractor(s).

The EIS states these construction methodology design changes *may* be subject to further assessment and consultation, if required by the Environmental Planning & Assessment (EP&A) Act. The EIS presents only a loose commitment to keep stakeholders informed. As part of the public exhibition of the Submissions and Preferred Infrastructure Report advocated in Part 1 of this submission, Council requests that details of construction methods around all construction sites be publicly exhibited. These details should show how each of the issues encountered in the poor management of construction for WestConnex Stages 1 and 2 will be improved.

Beca's assessment of general construction impacts raises also concerns that the EIS provides an assessment of probable construction methodologies whilst retaining flexibility for the contractors to later refine their methodology when appointed. Construction details in the EIS are thus indicative only and the EIS states they may be subject to further assessment and consultation.

Beca is of the view that the EIS presents only a loose commitment to keep stakeholders informed. The EIS lacks detail about consultation over construction impacts and proposes organisational framework identifying who is responsible for various actions and how local residents will be consulted throughout the construction period.

Recommendation: That Council writes to the NSW Premier and relevant ministers expressing concern about lack of detail in the EIS on construction activities, methods and consultation processes (CW54).

Recommendation: That Council requests DP&E to require, prior to any determination, all construction details to be publicly exhibited in relevant management plans (CW55).

Beca has a number of other comments and recommendations that are relevant to construction impacts.

Recommendation: That Council requests the DP&E to require, prior to any approval, an assessment of Beca's comments and recommendations in relation to Part 4 of Council's submission, *Construction work* (CW55).

PART 5: OPERATIONAL TRAFFIC & TRANSPORT

This section relates to EIS Chapter 8: *Traffic & transport*. It also relates to Issues 8, 10, 12 and 14 in Council's Concept Design submission:

- *“Operational traffic impacts on Anzac Bridge & The Crescent - particular concerns about the Rozelle Interchange feeding additional traffic onto the already congested Anzac Bridge and onto Johnston Street and The Crescent at Annandale – these latter two streets being within densely developed residential areas.”*

- “Need for a stronger commitment to reduction of traffic capacity for private vehicles, public and active transport improvements and amenity improvements wherever traffic is reduced by WestConnex – in particular, along Victoria Road and Parramatta Road.”
- “Need to further improve walk/cycle connectivity across Rozelle Rail Yards site - a greater number and improved quality of north-south walk/cycle connections needed across City West Link and the RRY site to link the Rozelle, Lilyfield and Annandale communities, and to ensure the RRY recreation area is readily accessible to the community.”
- “Need to consider impact on future public transport corridors - concerns that construction of WestConnex Stage 3 and the Western Harbour Tunnel (if built) may hamper implementation of Western Metro (rail) and sever future light rail links, such as the White Bay / Balmain link.”

At a strategic level, Council is concerned about induced traffic from WestConnex.

At the highest level, Council has had a long-standing concern about existing high levels of traffic through inner-Sydney and is further concerned regarding the increased traffic anticipated to result from WestConnex. As is evident from the discussion of strategic traffic/transport issues in *Part 1 Justification for project* above, the contribution of WestConnex to traffic growth through induced traffic is a major concern.

The WestConnex business case indicates that an increase of some 45,000 extra car trips per day, which is approximately 0.4% of the estimated total regional traffic in 2031, is likely to be induced, i.e. trips that have occurred because of WestConnex. This may underestimate the real situation - but in any event it represents a significant increase in traffic and illustrates the sensitivity of forecasts for regional traffic growth.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers to express its concerns about negative impacts on the Inner West from induced traffic from WestConnex (TT1).

The travel time benefits of WestConnex appear to be over-estimated, while the health costs are under-estimated.

Council is also sceptical that the stated travel time reduction benefits of WestConnex are accurate – likely to be overstated. Analysis of the network-wide (motorway and other roads combined) distance travelled and time taken provided in the EIS indicates that, in 2033 the *do minimum* scenario is estimated to result in an average individual vehicle speed of 25.3kph, while the *cumulative* scenario from multiple planned projects including Stage 3 is estimated result in an average individual vehicle speed of 26.4kph. Noting that today’s average speed across the total network is 33.8kph.

If these projections are correct, each individual driver using Sydney’s road network will only experience an increased travel speed of 1.1kph and, further, their average speed will be 7.5kph slower than today’s network-wide average.

This is considered to be of negligible benefit particularly when compared to the extensive health and other costs imposed by the project – discussed throughout this submission. It would thus appear that the real benefits of WestConnex have been overestimated and it has been argued elsewhere in this submission that the costs have been underestimated, particularly when the health costs of communities affected by the project have been ignored. Consequently the project’s benefit-cost analysis must be questioned.

Further to this, there has been no assessment of public transport and demand management improvement that could be initiated to achieve that same congestion reductions and travel time savings. Council is particularly concerned about the likelihood of 'mode share leaching' from walking, cycling and public transport to private cars. This not only leads to increased traffic, but also can undermine the viability of public transport through reduced patronage. It is counter to numerous local, State and Federal government policies that all aim to reduce private car use and promote walking, cycling and use of public transport.

Beca has raised issues with the method of calculating induced traffic, and one of the recommendations of this submission is that further information be provided on this calculation. Additional information has also been requested to determine the degree to which this induced traffic is causing a mode-shift from public transport to private car use rather than simply generating additional road trips.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers to express concerns about the overstatement of travel time benefits and understatement of health costs from WestConnex (TT2).

Recommendation: That Council requests DP&E to require, prior to any determination, an explanation of the method of calculating travel-time savings in the EIS and the true value of such savings against other costs including community health, well-being and safety (TT3).

Recommendation: That Council requests DP&E to require, prior to any determination, an assessment of public transport and demand-management initiatives that could be implemented to achieve that same congestion reductions/travel time savings as WestConnex (TT4).

At a local level, Council is concerned about additional traffic from WestConnex on residential streets.

At the local scale, Council is concerned about WestConnex-related traffic growth along residential streets in the Inner West Council area - particularly those around the Haberfield, Rozelle and St Peters interchanges. For Stage 3, much of that concern focuses on streets around the Rozelle Interchange.

Council is concerned that should Stage 3 proceed with entry/exit points from the Rozelle Interchange considerable additional traffic will spill onto the already congested Anzac Bridge and other significant streets such as The Crescent and Johnston Street. Additional traffic would continue onto other connecting streets further afield (including Ross Street, Glebe).

Even though Johnston Street is classified as a State Road, additional traffic is a concern to Council as it is essentially a residential street that also includes two schools, two churches, a number of community facilities and the Annandale local shopping centre. Further, in conflict with anticipated increased traffic volumes, the active transport section of the EIS identifies potential for a cycleway along Johnston Street.

For some time Council has been seeking to install separated bicycle lanes on Johnston Street at Annandale but RMS has not permitted this. This is feasible as two of the four traffic lanes could readily be converted to bicycle lanes. Council sees there is now an imperative to install these lanes to mitigate against road safety and traffic congestion impacts at the construction and operational stages of WestConnex Stage 3. Council's concerns about construction and operational traffic on Johnston Street are discussed elsewhere in this submission.

Of particular concern is that on streets like these and wherever there is additional traffic, RMS may consider widening or establishing clearways to accommodate the additional traffic - similar to what is now underway for Stage 2 at Campbell Street/Road, St Peters and Euston Road, Alexandria. Reconfiguring these roads in this way is always at the expense of neighbourhood liveability, residential amenity, business vitality and safety for pedestrians and cyclists.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers to express its concerns about additional traffic from WestConnex on local streets and main roads. Council seeks a commitment that RMS will not widen or remove clearways on any street or road around WestConnex to accommodating additional traffic (TT5).

Recommendation: That Council requests DP&E to include in any conditions of approval a requirement that RMS will not widen or remove clearways on any road around WestConnex to accommodating additional traffic generated by the project (TT6).

Recommendation: That Council requests DP&E to include in any conditions of approval a requirement that RMS support the establishment of a separated cycleway for the length of Johnston Street, between The Crescent and Parramatta Road and that this cycleway be supported by suitable traffic calming measures to minimise pedestrian/vehicular and cyclist/vehicular conflict (TT7).

Council seeks to protect streets that may be affected by additional traffic from WestConnex.

Council is developing a strategy to identify and traffic-calm other local roads that may be affected by additional traffic from WestConnex. The Crescent, Johnston Street, Waratah Street, Dalhousie Street, Street Ramsay Street and other adjoining streets are being examined as part of this strategy.

Council is concerned that 'rat-running' will occur as motorists either seek to avoid WestConnex tolls or where WestConnex has missing links - for example, when Stage 1 opens but there is no direct connection to destinations such as Sydney Airport. This would result in significant and potentially permanent adverse impacts on the amenity of Inner West residential neighbourhoods.

Conditions of approval for WestConnex Stages 1 and 2 acknowledge the need for monitoring and treatment of affected roads around WestConnex. For example, Stage 1 Condition E36 and Stage 2 Condition E40 requires the preparation of a *Road Network Performance Review Plan* which includes assessing the impacts of WestConnex on local roads. Development of the plan would not however commence until 12 months after the project is operational, potentially condemning residents to a period of traffic impacts before any remedial action is contemplated. Council considers this to be unacceptable, arguing that impacts should be projected through traffic modelling, and other prediction techniques and remediation measures put in place to avoid the impacts before they occur.

As a result, Council has commissioned its own traffic modelling, using the 'Zenith' model, which can apply to *local* roads. RMS is assisting Council with information from its WestConnex Road Traffic Model (WRTM), which applies to *main* roads. Scenarios being modelled include: base case 2011; base case 2021; project case 2021 – WestConnex Stages 1 & 2; project case 2031 – WestConnex Stages 1 & 2; and project case 2031 – WestConnex Stages 1, 2 & 3.

It is intended that the study be used to develop a program of works for traffic calming potentially affected streets (with input from local communities), then a request made to the NSW Government to fund these works. This is reasonable given there is a clear nexus between impacts from WestConnex and the need for these works. It is also important that these measures are in place prior to the opening of any stage of WestConnex.

Council's preliminary modelling results have highlighted the following streets may be affected by additional traffic from WestConnex: Johnston Street, Annandale; The Crescent, Annandale; Frederick Street, Ashfield; Ramsay Street, Haberfield; Marion Street, Haberfield; Alt Street, Ashfield; Bland Street, Ashfield; Waratah Street, Haberfield; Dalhousie Street, Haberfield; Campbell Street, St Peters; and Unwins Bridge Road, St Peters.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers seeking a continued commitment from RMS and other agencies to Council's efforts to identify and protect local streets that may be affected by WestConnex traffic. As increased traffic flows are related directly to WestConnex, RMS should fund implementation of traffic calming works to protect these streets (TT8).

Recommendation: That Council requests DP&E to include in any condition of approval a requirement that commits RMS and other agencies to continue to work with Council to identify, through independent modelling, local streets that may be affected by *additional* traffic from WestConnex. An initial identification of these streets is attached to Council's submission. RMS to continue to work with Council and the community to develop traffic-calming schemes to protect these streets from the additional traffic. Works to be funded by the NSW Government and implemented prior to any stage of WestConnex becoming operational (TT9).

Council also seeks to capture spare road capacity on all roads where traffic may be reduced by WestConnex.

One of the few benefits from WestConnex is the opportunity to reduce traffic capacity and make a range of surface improvements - including public transport improvements - wherever WestConnex reduces surface traffic. For Stage 3, the main opportunity is to improve Victoria Road at Rozelle – possible because of surface traffic reductions brought about by the Iron Cove Link. There is also an opportunity to make improvements to Parramatta Road, created by all stages of WestConnex.

Council's prior experience is that RMS will often resist traffic capacity reductions on main roads, even where traffic levels have been reduced. Council seeks to avoid a situation where increased road capacity below-ground has not resulted in captured capacity (use of spare capacity for sustainable transport and public domain improvements) above-ground. In particular, Council seeks assurance from SMC and the NSW Government that reduced traffic capacity along Victoria Road and Parramatta Road will result increased capacity for public and active transport.

Council's preliminary assessment shows the following roads may have reduced traffic from WestConnex: Victoria Road, Rozelle (due to Iron Cove Link); Balmain Road/Darling Street, Rozelle; King Street, Newtown; Enmore Road, Enmore; Marrickville Road, Marrickville; Sydenham Road, Marrickville.

Though Council has not yet been able to confidently conclude that WestConnex will reduce traffic on Parramatta Road (for its full length through the Inner West Council area), it will continue to advocate traffic capacity capture and high-capacity public transport along that corridor. One of the public transport options Council has been investigating for Parramatta Road is Guided Electric Transit.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers seeking a commitment from RMS and relevant agencies to Council's efforts to identify and capture spare traffic capacity from all streets and roads that may have *reduced* traffic from WestConnex, and to seek funding for implementation of public transport, active transport and streetscape improvements on these streets and roads (TT10).

Recommendation: That Council requests DP&E to include in any condition of approval a requirement that commits RMS to working with Council to identify roads that may have reduced traffic from WestConnex and to work with Council and the community to capture road capacity to increase capacity for public transport, active transport and amenity improvements. An initial identification of these roads is attached to Council's submission. Masterplanning of these roads to be undertaken by a working group that includes Council, relevant State agencies and community representatives, with works funded by the NSW Government. Priority roads in this category are Parramatta Road and Victoria Road at Rozelle (TT11).

Beca's assessment raises concerns about the ability of WestConnex to remove heavy vehicles from surface roads as originally planned.

Beca has pointed out that although one of the main original justifications for the WestConnex was to take airport and port related heavy vehicles off the surface roads, there is little evidence that this project aim remains valid. As indicated in the EIS, relatively few heavy vehicles in 2031 are likely to have a desire line between the eastern end of the M4 and the airport and port.

Further, the project now delivers vehicles at the surface at St Peters, some 5 km by road from the airport and some 15 km by road from Port Botany, thus requiring the construction of the Sydney Gateway an additional project (not part of this EIS) to gain access to the airport/port.

Nor has the EIS indicated the degree to which heavy vehicles will be attracted to the motorway regarding the sensitivity of heavy vehicle users to tolling regimes, the inability of dangerous good vehicles to be permitted to use tunnels or the likelihood of reduced surface road congestion to attract heavy vehicles to these surface roads.

Recommendation: That Council requests the DP&E to require, prior to any determination, a further assessment of the ability of WestConnex to remove heavy vehicles from surface roads. Assessment to include heavy vehicle desire lines to/from Port Botany and Sydney Airport and the sensitivity of heavy vehicles to tolls (TT12).

Recommendation: That Council requests DP&E to include in any conditions of approval a requirement for monitoring of selected streets to validate traffic modelling one, two and five years after opening of the project. This is to ensure local streets continue to be protected against additional traffic from WestConnex and that traffic capacity is reclaimed from streets where traffic has been reduced by WestConnex (TT13).

Beca's traffic assessment raises a number of issues about EIS's traffic modelling, including lack of background information and flawed assumptions.

Recommendation: That Council requests the DP&E to require, prior to any approval, an assessment of Beca's comments and recommendations in relation to Part 5 of Council's submission, *Operational traffic & transport* (TT14).

The draft active transport strategy is welcomed, but Council is concerned that the project's construction and operational traffic impacts will have a negative impact on active transport overall.

As Council always strives to improve conditions for pedestrians and cyclists, the draft active transport strategy accompanies the EIS is welcomed. Council is however concerned that proposed construction activities will create safety issues for pedestrians and cyclists at a number of locations. Council is also concerned that by increasing traffic in the Inner West, through induced traffic, the project would result in a deterioration of conditions for walking and cycling in the long-term. It would also make it more difficult for Council to reclaim traffic lanes for dedicated bicycle lanes, particularly on State and Regional roads where they are usually most needed. These issues are discussed elsewhere in this submission.

Recommendation: That Council writes to the NSW Premier and relevant ministers expressing concerns that construction and operational traffic from WestConnex will create safety issues for pedestrians and cyclists in the short and long-term and make it more difficult for Council to create functional active transport networks (TT15).

Recommendation: That Council requests DP&E to include in any conditions of approval a requirement to involve Council, pedestrian and cycling groups and the general community in the further development of the Stage 3 active transport strategy (TT16).

There is a need to improve north-south connectivity across the RRY site

Council is keen to ensure the creation of the RRY recreation area results in significantly improved walk/cycle connectivity across this site. Council notes that north-south connectivity has been poor in the past due to lack of any public access to or through the RRY site, although some of these movements have been possible along a limited number of public roads that cross the site, such as Balmain Road and Catherine Street.

The wide and heavily-trafficked City West Link Road (and the inaccessible RRY site itself) have traditionally been a barrier to north-south connectivity. On either side of the RRY site, east-west movements have been possible along reasonably direct local streets such as Lilyfield Road, Railway Parade and Brenan Street, even though the City West Link Road is not available to pedestrians and cyclists. Creation of the RRY recreation area represents an important opportunity to improve this situation.

Although Council generally supports the walk/cycle routes proposed within the EIS's active transport strategy it is apparent further work is needed to ensure routes follow walk/cycle desire lines and are designed to a suitably high standard. Should Stage 3 proceed, it is anticipated that Council staff will continue to work with project staff and the community to refine these designs.

Council's main concerns at this stage are the need for a greater number of north-south walk/cycle connections, that walk/cycle bridges be constructed to a higher standard than shown and that the proposed land bridge from Buruwan Park not detrimentally affect the park or active transport links across The Crescent to Federal and Jubilee parks and the shared foreshore path network.

The two connections shown are welcomed, but a third (and possibly fourth) connection is warranted to ensure maximum connectivity. In the draft masterplan only one of the two bridges shown is a 'land bridge' – the other is a minimum-width bridge without landscaping. All bridges should be designed and constructed as land bridges to ensure the crossing of

City West Link Road is as attractive and safe as possible. The added cost is warranted as the RRY recreation area is expected to generate considerable walk/cycle traffic. Prioritising walk/cycle access is also important to minimise the need to access the site by car, reducing the need to provide for parking within or near the site.

Recommendation: That Council requests DP&E to include in any conditions of approval a requirement that enhanced active transport connectivity be provided to Rozelle Rail Yards recreation area through the construction of genuine land bridges rather than simple narrow bridging structures (TT17).

There is a need to integrate new walk/cycle routes across the RRY site with regional networks.

It is important that walk/cycle connections to and through the RRY site are integrated into the regional walk/cycle network defined by various active transport plans of the NSW Government and relevant councils.

Capacity capture opportunities on streets likely to experience reduced traffic from WestConnex (discussed above) should provide the ability to enhance connectivity to existing networks and desired future networks. These networks are defined in Council's bicycle plans and in the City of Sydney's *Inner Sydney Regional Bike Network*. A key route to address is the City West Cycle Link, which would run along the Inner West light rail corridor between The GreenWay / Bay Run and Anzac Bridge / Glebe Island Bridge.

A reinstated Glebe Island Bridge, a heritage-listed RMS asset, would be part of the wider GreenWay / Bays Precinct active transport network. Additionally the new (fenced-off) section of James Craig Road, an extension between White Bay and Glebe Island, would be part of a future public/active transport corridor to the City and Pyrmont from Balmain via the Glebe Island Bridge.

The project's active transport strategy should also consider standards set by Council for the abovementioned GreenWay – developed as part of Council's GreenWay 'missing links' strategy. This includes standards for landscaping using locally indigenous species, bike path widths, signage, lighting, public domain and street furniture for the Greenway missing links strategy. Paths should also incorporate public art wherever possible and commission works by local artists.

Recommendation: That Council requests DP&E to require, prior to any determination, an assessment within the active transport strategy of all options to connect all walk/cycle paths through the proposed Rozelle Rail Yards recreation area to the Cooks River to The Bays Greenway. This would include an assessment of the City West Cycle Link between the GreenWay / Bay Run and the RRY recreation area and how standard designs developed for the GreenWay can be incorporated (TT18).

Recommendation: That Council requests DP&E to include in any conditions of approval a requirement that Glebe Island Bridge be reinstated as an active transport link between Glebe Island and Pyrmont (TT19).

Recommendation: That Council requests DP&E to include in any conditions of approval a requirement that the existing connection (shared path bridge) across Vitoria Road (at Lilyfield Road) be improved or at least retained as part of the active transport network (TT20).

Need to maintain a walk/cycle connection from Railway Parade and The Crescent and more space for cyclists beneath the railway bridge at The Crescent.

Post-construction, there must be sufficient space at this location for a flat path to run on the southwest edge of the proposed slip-lane from Railway Parade to connect with The Crescent footpath. The project also provides an opportunity to widen the road shoulder or provide a dedicated bicycle path under the railway viaduct for cyclists using The Crescent.

Recommendation: That Council requests DP&E to include in any conditions of approval a requirement for a plan within the active transport strategy showing maintenance of walk/cycle access to The Crescent from Railway Parade, Annandale during construction. Post-construction, the plan is to show a path on the southwest edge of the proposed slip lane connecting Railway Parade to The Crescent footpath and a bicycle lane under the nearby railway viaduct (TT21).

Need to ensure that rights-of-way for future public transport are maintained.

As part of Council's general support for public transport, reassurance is sought that tunnelling alignments and other features of WestConnex Stage 3 and possibly the Western Harbour Tunnel would not impede rights-of-way for future public transport projects. These include Sydney Metro West (heavy rail) and link from the Inner West Light Rail to White Bay and Balmain.

Council has on several occasions written to relevant State agencies seeking such a reassurance, but has not been completely satisfied that the agencies are co-ordinating on this matter or have given it the priority it deserves. Council will continue to raise this issue at every opportunity.

The former-freight rail corridor which runs at-grade through the RRY site from the Lilyfield light rail stop to the Victoria Road Bridge underpass connects to Glebe Island and White Bay. Although the tracks are considered by the NSW Government to be redundant infrastructure, the right-of-way should be reserved for possible surface light rail expansion into the future. Council is concerned that unless the right-of-way is identified in all designs for the RRY site, a light rail link will be difficult to re-instate if WestConnex Stage 3 is constructed.

The light rail link could also complement to any future Sydney Metro West station in The Bays Precinct, which will likely require a large catchment of users to be viable. Sydney's light rail service, currently being extended, could feed passengers from across the region to this this Metro station. Even without a Metro, a light rail extension through the RRY site connecting the Bays Precinct with the existing Inner West light rail line would improve access to this precinct and would facilitate a future Victoria Road bus rapid transit corridor. It would also serve the heavily populated Balmain Peninsula.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers raising concerns about use of the Rozelle Rail Yards site for WestConnex could sever rights-of-way for future public transport projects, including future light rail links (TT22).

Recommendation: That Council requests DP&E to require, prior to any determination, an assessment of how rights-of-way are to be maintained for future public transport projects such as the Sydney Metro West (heavy rail) and light rail links to White Bay Power Station, Glebe Island and the White Bay cruise ship terminal (TT23).

There is a need for separated bicycle lanes along Victoria Road at Rozelle and clarification of plans for the existing walk/cycle bridge over Victoria Road.

Regarding the impact of pedestrian and cycling routes along Victoria Road at Rozelle, there appears to be a difference between the EIS's active transport strategy and other parts of the EIS. The active transport strategy refers to a separated cycleway along Victoria Road while EIS plans don't appear to indicate one. Further, the plans don't appear to indicate any public domain improvements along Victoria Road. From the EIS it is also unclear whether the walk/cycle bridge over Victoria Road near Lilyfield Road will remain. Removal of this bridge has a number of implications, including maintenance of pedestrian access to the White Bay bus stop.

Recommendation: That Council requests DP&E to require, prior to any determination, a plan within the active transport strategy for separated bicycle lanes along Victoria Road, Rozelle and other public domain improvements facilitated by the Iron Cove Link. Plan to clarify whether the walk/cycle bridge over Victoria Road will remain (TT24).

PART 6: NOISE & VIBRATION

This part relates to EIS Chapter 10: *Noise & vibration*.

Most of the discussion of Council's issues in relation to noise and vibration has been discussed in the *Part 4 Construction work* above.

There is a need to acknowledge that conditions of approval and adoption of best-practice cannot fully mitigate against intolerable construction impacts on residents.

The EIS recognises that there will be significant construction impacts across multiple communities with all its Stage 3 proposals. From experience with Stages 1 and 2, residents of Haberfield/Ashfield and St Peters claim that even if best-practice construction methods are adopted (often not the case in reality) and complete compliance with conditions of approval is achieved, noise and vibration impacts are intolerable. Added to this are the cumulative impacts from a range of non-contestable construction activities that are not formally part of the project – as discussed in *Part 4 Construction work* above.

Residents affected by Stages 1 and 2 have learned that the project's noise mitigation measures are inadequate, and there is "project creep" that has seen work extend to operations on most days and most nights. The EIS claims that work is to be scheduled to avoid constant impacts is doubted, as residents affected by Stages 1 and 2 have been affected by constant impacts due to cumulative impacts. The standard response to complaints has been that the project can continue to operate in this way as it has approval to do so.

Recommendation: That Council writes to the NSW Premier and relevant ministers to express concerns that conditions of approval and adoption of best practice cannot fully mitigate against construction impacts on residents (NV1).

There is a need to improve noise monitoring and to account for the nature of noise impacts levels.

Actual measurements of some noise sources, such as a constantly operating jet-fan at a Haberfield/Ashfield site, shows exceedances of 'acceptable' levels defined in the EIS. Noise standards also don't account for the nature of the noise and how this may contribute to a resident's sense of annoyance.

Recommendation: That Council requests the DP&E to include in any conditions of approval a requirement for constant noise and vibration monitoring, with result publicly available online in real time. Noise exceedance levels to account for the nature of noise impacts (NV2).

There is a need to include vibration in the required assessment of cumulative construction impacts.

Though Council and residents are repeatedly reassured by the proponent that tunnelling is not likely to create significant noise or vibration impacts, and only for a short period, Haberfield/Ashfield and St Peters residents already affected by general construction noise have also complained about tunnelling vibration impacts.

Recommendation: That Council requests the DP&E to require, prior to any determination, a further assessment of the cumulative impacts of vibration on noise and other impacts from Stage 3 construction sites. The assessment to include an evaluation of cumulative construction impacts experienced by affected residents to date from Stages 1 and 2 (NV3).

There is a need to further assess the impacts of vibration on people and buildings wherever tunnels are at shallow depths.

The EIS states that operational noise and vibration would not be felt by residents at the surface. This may be the case where tunnel depths are at their greatest, but Council notes that in areas above underground interchanges and near portals, tunnel depths will be shallower, increasing the risk of operational noise and vibration impacts. Vibration from construction, ground settlement and possibly operation also puts all properties above and in vicinity of WestConnex tunnels at risk of cracking. This issue is further discussed in Part 13: *Flooding, drainage and groundwater.*

Recommendation: That Council requests the DP&E to require, prior to any determination, a further assessment of vibration impacts on people and buildings in locations where WestConnex tunnels are shallow (NV4).

Beca's noise & vibration assessment raises includes a number of comments about the EISs noise modelling and has recommendations designed to mitigate noise impacts.

Recommendation: That Council requests the DP&E to require, prior to any approval, an assessment of Beca's comments and recommendations in relation to Part 6 of Council's submission, *Noise & vibration* (NV5).

PART 7: HUMAN HEALTH RISK

This part relates to EIS Chapter 11: *Human health risk.*

At a strategic level, there is a need to acknowledge high-level health impacts of main roads and motorways

Numerous studies worldwide indicate that the construction of urban motorways contributes to private car dependency. In turn, this increased dependency - with an estimated induced demand of 45,000 additional vehicle trips per day created by WestConnex - contributes to reduced human and community health through:

- Reduced air quality, potentially leading to increased incidence of respiratory illness;
- Sleep disturbance due to construction activity and increased traffic noise, potentially contributing to stress levels of local residents, reduced immune response, increased personal irritability, reduced concentration span, increased levels of hyperactivity in children;
- Psychological distress created by uncertainty of future circumstances including property acquisitions and property value fluctuations; and
- Reduced use of active transport, where there is direct access to a car in comparison to walking to a railway station or bus stop – potentially leading to increased obesity and corresponding increases in diabetes and cardiovascular illness.

While many of the physiological impacts are more prevalent in communities with larger proportions of vulnerable populations, including frail, aged and children, the psychological impacts may affect all groups. Of particular relevance, in relation to increased stress are young families who may experience the compounding effects of financial stress (due to property value fluctuations), long work hours combined with sleep disturbance when at home and concern over the well-being of their children.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers to express its concerns about the multiple and far-reaching health effects of urban motorways (HR1).

There is a need to acknowledge the serious health impacts that construction of WestConnex Stages 1 and 2 has already imposed on residents of Haberfield/Ashfield and St Peters.

Council's experiences to date from discussions between staff and residents affected by Stages 1 and 2 proves Council's concerns about the human health impacts from WestConnex construction are based on residents' lived experiences since construction of WestConnex began. The key health impact has been stress and sleep deprivation from night-works, and the primary sources of these health impacts - noise, dust, vibration and air emissions - are discussed in other parts of this submission – mainly in Parts 3, 4 and 6 – *Air quality, Construction work and Noise & vibration*.

As mentioned elsewhere in this submission, cumulative construction impacts have been a major contributor to health problems. Haberfield/Ashfield residents located between a number of WestConnex work sites report they are regularly affected by noise even during so-called 'respite periods'. One resident stated: "when one worksite stops, another one starts".

Affected residents report to Council their "despair" at these impacts, frustrations with the complaints processes and consequently a "loss of faith in the democratic process". Many believe that community consultation processes for the project are cursory and not genuine. Residents also "despair" at the blighted appearance of their neighbourhood whilst works are progressing. They complain of "construction fatigue" from the constant interruptions to their peace of mind from construction noise and vibration, and the psychological impact of project trucks and employees "invading" their neighbourhoods.

Residents report "extraordinary amounts of dust" in their neighbourhoods. Dust, along with diesel emissions from construction vehicles and generators, has adverse health impacts on all affected residents, but this is particularly so for young and elderly people, where it more readily affects heart, vascular and lung health. Noise also adversely affects heart and vascular health as well as affecting cognitive functions. The health impact study requested by Council in this submission will need to investigate these impacts, integrating health data

from schools, local doctors and other sources to monitor the health impact of project - at both construction and operational stages.

Beyond health impacts, the dust creates a need for constant cleaning of windows and interior surfaces. Residents also report their concerns about inadequate and seemingly ad-hoc dust mitigation measures, and see a clear need to improve dust monitoring and compliance enforcement. Further discussion of dust impacts and Council's recommendation for improved dust monitoring is in Part 3 *Air quality* above.

From Council staff discussions with affected residents, the project has affected their psychological health and has increased their general sense of insecurity. The constantly changing work schedules, changes to traffic arrangements and cumulative noise impacts has led to constant disruptions to the day-to-day lives of residents. For many Haberfield/Ashfield residents and some St Peters residents, the impacts of one to two years of construction is showing in the form of fatigue and poor health. Continuation of these impacts for Stage 3 would have a devastating health impact these residents.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers to express concerns about the serious health impacts that WestConnex Stages 1 and 2 has already imposed on residents of Haberfield/Ashfield and St Peters (HR2).

Recommendation: That Council requests DP&E to include in any conditions of approval the appointment of an independent human health practitioner to monitor on-going health issues associated with WestConnex. The practitioner should be readily approachable by the community and guided by an advisory group which includes (but is not be limited) to NSW Health, DP&E, EPA and relevant Councils. Periodic health reviews should be undertaken and results made publicly available (HR3).

Council is concerned about the health impacts of vehicle emissions from the project even if they represent a marginal addition to background air pollution levels.

As mentioned elsewhere in this submission, should the project proceed, increased traffic volumes of 45,000 vehicles per day from induced traffic would contribute to reduced air quality. Council is of the view that *any* reduction in air quality is unacceptable and will contribute to reductions in the quality of human health. By the same argument, *any* increase in dust, noise and other impacts from the project will have adverse health impacts.

Numerous studies have examined the impacts of various pollutants on human health. In general terms, human health impacts associated with WestConnex fall into the following categories: particulate matter emissions (particulates); gaseous chemical emissions (e.g. NO₂); dust emissions; the mental or psychological impacts of noise; and the psychological impacts of behavioural disruption, sometimes leading to social isolation.

In 2015 the Woolcock Institute of Medical Research examined the health impacts of emission sources, types and levels of particulates in air pollution in ambient air in NSW. It stated that while ambient levels of particulates in urban NSW are low by world standards, evidence suggests that exposure to levels of particulates that currently exist in NSW will have measureable adverse impacts on health. This is particularly the case for vulnerable people such as individuals with chronic respiratory and cardiovascular diseases, the elderly, and children. Reductions in particulates in air pollution in NSW are likely to result in health benefits, particularly for these most vulnerable groups.

The review's main findings are:

- All particulates, regardless of source, should be considered detrimental to health;

- There is considerable evidence of adverse health impacts linked to exposure to particulates from combustion-related emissions, including coal-fired power stations, on-road vehicles, diesel exhaust, more so than other particulate sources;
- There is evidence that fine particles (PM_{2.5}) are more detrimental to health and have a wider range of health effects than larger particles. However, larger inhalable particles are not benign, and it has been demonstrated that coarse particles (PM_{10-2.5}) have detrimental health impacts and that these health impacts differ from those associated with smaller particles; and
- There is no evidence of a threshold level of ambient PM_{2.5}, below which further reductions in concentrations will not provide additional population health benefits.

The study states that increases in ambient PM_{2.5} and PM₁₀ are associated with increases in mortality and increases in cardiovascular and respiratory morbidity. Exposure to PM from combustion-related sources (coal-fired power stations, on-road vehicles, diesel exhaust) is associated with impacts on cardiovascular and respiratory health. There is thus sufficient evidence to indicate that particulates from on-road vehicles will increase risk of mortality, as well as cardiovascular and respiratory morbidity.

A 2014 study by Munzel et al *Cardiovascular effects of environmental noise exposure* published in the European Heart Journal found that long-term noise exposure may lead to cardiovascular problems, and night-time noise was particularly of concern. A 2013 study by Harding et al *The cost of hypertension-related ill-health attributable to environmental noise* published in the Noise Health Journal found that on-going exposure to high levels of environmental noise has the potential to influence community levels of dementia, stroke and heart attack.

A 2013 study by Tiesler et al *Exposure to road traffic noise and children's behavioural problems and sleep disturbance* published in the Environmental Research Journal indicates that a sample of over 850 10-year-old children living near busy roads in Germany presented with behavioural problems at greater levels than similar children living on quieter streets. These behavioural problems included hyperactivity, inattentiveness and anxiousness.

Council has advocated elsewhere in this submission that a health study, overseen by Health NSW, be undertaken prior to any determination which involves collection of data on the current health status of residents affected by Stages 1 and 2 at Haberfield/Ashfield and St Peters. This should include involvement of the NSW Department of Education for the collection of data on the health of school children. The study should also collect baseline health data on all areas affected by Stage 3.

Several other studies indicate broader impacts of traffic and construction noise on human health. A 2007 book by Professor Deepak Prasher of University College London *Noise and its effects* explains that even if people are habituated to on-going noise, the impacts of exposure can detrimentally affect human physiology, including endocrine, immune and cardiovascular systems.

A 2014 paper by Tzivian et al *Effect of long-term outdoor air pollution and noise on cognitive and psychological functions in adults* in the International Journal of Hygiene and Environmental Health found that on-going noise exposure contributes toward cognitive development in children, cognitive and psychological functions in adults which includes stress, aggravated depression, public conflict, loss of concentration and general exhaustion.

Other studies acknowledge that particulate emissions from on-road motor vehicles (diesel and non-diesel) represent only a relatively small proportion of the ambient particulate levels,

but caution that any exposure to fine or coarse particulates has the potential to negatively influence human health.

Based on the above, it is Council's view that WestConnex has the potential to detrimentally impacts on individual and community health through the noise, vehicle and dust emissions and social disruption during construction and operational stages. Council contends that these health costs have not been included in any of the economic analysis associated with the project's business case, nor have they been adequately assessed in the Stage 3 EIS.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers expressing its concerns about the noise and air quality impacts from WestConnex and its impact on human health, particularly for vulnerable populations (HR4).

There is a need to acknowledge the serious psychological impacts that property acquisitions has had on individuals, families, households and businesses.

Beyond the abovementioned construction impacts, there have been short and long-term impacts on the psychological health and well-being on individuals from loss of friends and community members when residential properties in the St Peters, Haberfield/Ashfield and Rozelle area were compulsory acquired and individuals, households and families were lost to the community.

Residents of Haberfield/Ashfield tell of neighbours forced out of their homes not being able to rent or purchase equivalent homes within the area and becoming "refugees" in Sydney. This has long-term impacts the lives of individuals and families, with greatest the impacts usually felt by migrant families. The loss of attachment to a sense of place has been profound for both acquired residents and those left behind.

For Stage 3, this is currently the experience for residents whose homes are being *compulsorily* acquired along Victoria Road. It is also the experience of businesses being acquired at Haberfield, Leichhardt, Annandale/Camperdown, Lilyfield (next to the RRY site) and along Victoria Road at Rozelle. It is likely this impact will widen as *voluntary* acquisitions are also implemented around other construction sites.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers to express its concerns about the serious psychological impacts that compulsory property acquisitions continues to have on individuals, families, households and businesses (HR5).

Beca's assessment of human health risks should also be considered.

Recommendation: That Council requests the DP&E to require, prior to any approval, an assessment of Beca's comments and recommendations in relation to Part 7 of Council's submission – *Human health risks* (HR6).

PART 8: LAND USE & PROPERTY

This part relates to EIS Chapter 12: *Land use & property*. It also relates to Issues 9 and 13 in Council's submission on the Concept Design:

- *"Impact of compulsory acquisitions – primarily on residents and businesses along a section of Victoria Road at Rozelle required for construction of the Iron Cove Link tunnel portal onto Victoria Road, and on businesses adjacent to the RRY site and on Parramatta Road at Annandale/Camperdown."*

- “Need for full delivery of Rozelle Rail Yards recreation area to Council”

There is a need for significant improvement in compulsory acquisition processes.

As discussed above, compulsory acquisition of homes and businesses at Haberfield/Ashfield and St Peters for Stages 1 and 2 devastated the lives of many individuals, families/households and business operators and their employees. To make matters worse, some property owners have claimed the compensation they received was not sufficient to enable them to purchase equivalent properties within their neighbourhoods. Affected residents and business owners have reported their sense that acquisition processes are being poorly treated by RMS in negotiations over their properties.

The Victoria Road acquisitions also involve a number of businesses, and businesses are also being acquired in the Gordon Street industrial area at Lilyfield adjacent to the RRY site, in the block bounded by Parramatta Road, Pyrmont Bridge Road and Mallet Street at Annandale, at 7 Darley Road at Leichhardt (Dan Murphy’s) and at 199 Parramatta Rd, Haberfield (Muir’s Holden). Many of these businesses are well-established, so their relocation (or disappearance) will have a major impact on both their owners and employees. Loss of these businesses also raises concerns for Council about loss of employment lands in the Inner West.

The EIS recognises a range of negative impacts or “social risks” affecting residents and tenants as well as business owners whose properties need to be acquired by the project. The EIS states that the number of properties to be acquired during Stage 3 comprises 26 residential properties together with 24 commercial or industrial zoned properties and one mixed-use property with 48 businesses.

Recently a RMS spokeswoman confirmed that a total 427 properties are required to support the construction of all stages of the WestConnex project. Of these 427 properties, 111 were yet to be acquired. Given these figures supplied by RMS, the cost of properties acquisitions required by the WestConnex motorway is likely to exceed \$1.5 billion. Council considers that the cumulative negative impacts of the project are aggravated by this expenditure of public money.

Whilst the EIS acknowledges that the impact of acquisitions on individual households and businesses is major, it claims that the number of acquisitions proposed “*is relatively low for an infrastructure project of this scale*” and that the impact is ameliorated by recent reforms to the NSW property acquisition system. The impact is deemed by the EIS to be “*a moderate negative*”.

Numerous difficulties experienced by residents who were served with property acquisition notices have exposed cumulative negative experiences ranging from under-valuation of homes to dislocation of community life. Many households reported that they were severely disadvantaged by the acquisition process and, as a result, moved away from their local communities and support networks. This exodus also represented a major loss to the communities concerned.

As the evidence provided above demonstrates, the administration of property acquisitions during Stages 1 and 2 has been characterised by serious shortcomings. It is noted and agreed that the passing of the Land Acquisition (Just Terms Compensation) Amendment Bill 2016 may help address some of these shortcomings.

Accordingly, Council requests the continued review of compulsory acquisition processes by the NSW Government, with a view to greater fairness for affected property owners. Council

also requests similar improvements to *voluntary* acquisition procedures and allocation of sufficient funding for noise mitigation measures such as double-glazing and air conditioning.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers expressing concerns about property acquisition processes applied to Stages 1 and 2, seeking significant improved in these processes for Stage 3 (LP1).

Recommendation: That Council writes to the NSW Premier and/or relevant ministers expressing concerns about the high financial cost of compulsory acquisitions, and their impact in reducing the supply of housing and employment lands in inner-Sydney (LP2).

Recommendation: That the DP&E requires, prior to any determination, a program of improved procedures for voluntary and compulsory property acquisitions (LP3).

The Rozelle Rail Yards recreation area and other residual lands should be fully-delivered to Council at the earliest opportunity.

Whilst Council welcomes the creation of the RRY recreation area, it would prefer this area was created without WestConnex. Council expects the RRY recreation area to be delivered to Council for its ownership at no cost, and all landscaping, paths and facilities to be constructed by the NSW Government according to final designs. It is also expected that maintenance funding would be provided and Council and the community would be closely involved in development of a plan of management for this important site.

All residual lands should be delivered at zero cost to Council unburdened by contamination or any immediate need for maintenance. All landscaping, paths and other community infrastructure should be delivered to Council fully constructed and all buildings (if any) renovated before handover.

Handover of residual lands should be in accordance with relevant conditions of approval that have been drafted in consultation with Council and affected communities. Further, the NSW Government should establish a fund that can be used by Council to maintain these lands for an initial period.

Council is also keen to ensure that construction and handover of the RRY recreation area and other residual lands is not delayed by construction of other projects, such as the proposed Western Harbour Tunnel if approved. In a similar way, construction of Stage 3 is delaying delivery of the St Peters Interchange recreation area and some of the residual lands in Haberfield/Ashfield. Council believes the community deserves the benefits of the RRY recreation area and other residual lands as soon as possible and certainly does not want to see land vacant for years awaiting use as a construction zone for another future project.

Recommendation: That Council requests the DP&E to include in any conditions of approval a requirement that the Rozelle Rail Yards recreation area and other Stage 3 residual lands should be fully-delivered to Council at the earliest opportunity with funding for maintenance. Council and the community to be closely involved in development of final designs and plans of management (LP4).

With the exception of the Pyrmont Bridge Road site, all residual lands should be devoted to open space and other community uses.

Council would in general terms prefer all WestConnex residual lands, including the RRY recreation area, to be devoted to community use rather than sold for commercial gain. The

exception is the Pymont Bridge Road site, which would be appropriately be returned to a 'biomedical hub' use in keeping with the Parramatta Road Urban Transformation Strategy. It is important that surrounding communities who have suffered the negative impacts of WestConnex derive benefit from these lands.

Recommendation: That Council requests the DP&E to include in any conditions of approval a requirement that all residual lands be devoted to open space and community use, with the exception of the Pymont Bridge Road site, which should be returned to a 'biomedical hub' use in keeping with the Parramatta Road Urban Transformation Strategy (LP5).

All residual lands should be as useful to the community as possible, and Council does not seek to own problematic residual lands.

It follows that all residual lands be as useful to the community as possible. Council seeks ownership of useful public space and facilities only. Council does not want to own and maintain useless or problematic residual areas created by WestConnex that are difficult to access and are blighted by motorway traffic. RMS should retain ownership of these problematic areas.

Recommendation: That Council requests the DP&E to include in any conditions of approval a requirement that all residual lands should be designed to be as useful to the community as possible, with RMS to retain ownership of areas that are not useful (LP6).

There is a need to improve processes for pre-construction property conditions surveys.

Council has concerns about pre-construction property condition surveys or 'dilapidation reports' being carried out by the proponent, as this appears to be a conflict of interest. The EIS states that all properties within 50m of the outer edge of underground tunnels would be offered a property condition survey before construction with a follow up survey for the property after construction. This is to ensure there is a record of the property's condition before and after construction. If there is any damage attributed to the project, it would be repaired at no cost to the property owner. Council would like these surveys to be carried out by an independent body.

Recommendation: That Council requests the DP&E to include in any conditions of approval a requirement that pre-construction property condition surveys be carried out by an independent body (LP7).

Beca's assessment of land-use & property impacts should also be considered.

Recommendation: That Council requests the DP&E to require, prior to any approval, an assessment of Beca's comments and recommendations in relation to Part 9 of Council's submission – *Land-use & property* (LP8).

PART 9: SOCIAL & ECONOMIC IMPACTS

This part relates to EIS Chapter 14: *Social & economic*.

Need to learn from social issues encountered by residents affected by Stages 1 and 2 to improve social impact assessment for Stage 3.

As is the case elsewhere in this submission, the discussion of social impacts draws on Council staff's discussions of issues with residents affected by WestConnex Stages 1 and 2. Inclusion of the main points from this dialogue is in Council's view critical to ensure lessons are learned from Stages 1 and 2 should Stage 3 proceed.

Council's recent discussions with a group of Haberfield tenants revealed they were suffering severe impact from the construction of Stage 1. They reported serious impacts on their health and well-being as a result of noise, vibration and dust, that the complaints system was inefficient and ineffective and they felt frustration when dealing with this system, which added to the stress in their lives.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers to request that social issues encountered by residents affected by Stages 1 and 2 to improve social impact assessment for Stage 3 (SE1).

Recommendation: That Council requests the DP&E to require in any conditions of approval appointment of a social worker to assist vulnerable members of the community affected by construction impacts (SE2).

The EIS has not seriously considered alternative designs that would reduce the project's adverse impacts on residents. There is concern that all stages of WestConnex will continue to reduce local connectivity and reduced ability for some to participate in community activities.

The EIS states that temporary changes along City West Link, Victoria Road, The Crescent and Lilyfield Road are likely to negatively affect local connectivity during construction. Despite the EIS's proposing temporary alternatives to the existing pedestrian bridges, Council is still of the view that there will be adverse impacts on community cohesion, access and active participation.

The EIS notes that access and amenity of some parks will be adversely affected, with parts of King George Park being permanently used as transport infrastructure and some areas being temporarily affected and rehabilitated post-construction. The Inner West is already under supplied with open space, so an assessment of the value of lost parkland needs to be undertaken and Council should be appropriately compensated.

The EIS recognises there will be an impact on public art. Council has recognised that there are two items of public art that would be affected by the project - a mural in Buruwan Park, and the Guerrilla Gardeners Troll under the Johnston Street Bridge. These will need to be protected.

The EIS recognises the project's impact on amenity and notes that there will be increased areas of concrete walls, access ramps and related infrastructure. There will also need to be adequate plans for graffiti mitigation.

The EIS also identifies the areas where high to moderate visual impacts can be expected. These are large areas of Easton Park, which has unimpeded views of the construction site including hoardings and other facilities, and Glebe Foreshore Parklands, with views that would be altered by construction works. Moderate to high visual impacts would need to be mitigated.

There will need to be plans for social infrastructure provision by promoting an integrated approach to social infrastructure that includes health care, education, fresh food access, public open spaces and other community/cultural facilities. The EIS recognises that it is

highly likely that operation of some social infrastructure will be affected by construction and affect the 'user experience'. Council recommends the proponent undertakes community consultation with the stakeholders affected by social infrastructure impacts to identify ways in which these can be mitigated.

In addition, it is recommended that the proponent do more 'fine grained' to address the impacts on the identified 17 social infrastructure facilities located in close proximity to construction compounds, including impacts on residents and visitors to the Rozelle local centre. It is recommended that a social infrastructure plan be prepared prior to construction in consultation with Council and the local community to minimise impacts on social infrastructure.

Recommendation: That Council requests DP&E to include in any conditions of approval a requirement for place-making and community programs to mitigate impacts from the project on community connectivity (SE3).

Recommendation: That Council requests DP&E to include in any conditions of approval a requirement for a parkland compensation plan to compensate Council for loss of parkland and to improve other areas of open space (SE4).

Recommendation: That Council requests DP&E to include in any conditions of approval a requirement to mitigate against graffiti and protect public art, including a mural in Buruwan Park and the *Guerrilla Gardeners Troll* under the Johnston Street Bridge (SE5).

There is a need for an assessment of the project against the Leichhardt Healthy Ageing Plan.

Regarding community safety, health and well-being impacts identified by EIS, Council is of the view that consideration be given to the key strategic objectives of the *Leichhardt Healthy Ageing Plan*. Objective 4.3 is that older people feel safe walking around. The construction phase is likely to make it difficult for older people to negotiate their way around construction zones. Objective 5.1 is that there are appropriate, affordable and well-located housing options close to services and shops for older people. Any acquisitions and subsequent relocations should consider this objective.

The Leichhardt Healthy Ageing Plan also supports the NSW Ageing Strategy action to “support implementation of local urban design solutions to create age-friendly communities, including benches, walkable pathways, clear signage, road crossings, age-appropriate public exercise equipment, seats and shelter at bus stops and accessible public toilets.” Any acquisitions and subsequent public domain improvements should consider this aim.

Recommendation: That Council requests DP&E to include in any conditions of approval a requirement to consider the *Leichhardt Healthy Ageing Plan* and *Inner West Council Inclusion Action Plan* in the development of relevant management plans (SE6).

Consider examples of international best-practice transport plans that promote social well-being.

Comparing an alternative international transport systems and plans can offer a valuable means of evaluating the objectives and impacts of WestConnex against other plans/projects. An example of an alternative transportation strategy which is based upon different principles to those underpinning WestConnex is the City of Vancouver's 2013 *Transportation 2040* plan.

The primary long-term goals of Transportation 2040 are to increase the mode share of travel by walking, cycling and public transport to at least two-thirds of all trips (from approximately 44% today) and to work toward zero traffic-related deaths. Transportation 2040 emphasises the importance of public space, parks and reserves – so that people can gather, interact, exercise and enjoy themselves. Significantly it links transportation not just to mobility, but to public health, safety, accessibility, vibrant and resilient communities, and environmental well-being.

In contrast to WestConnex, Transportation 2040 embraces a number of goals that promote the ‘three pillars of sustainability’. Together they support an economically, environmentally, and socially sustainable city. These goals are considered to be interdependent. Targets play an integral part in realising the goals of *Transportation 2040*. For example, by 2040 the goal is that at least two-thirds of all trips to or within Vancouver made on foot, bicycle or transit on public transport. The plan is dedicated to increasing the total number of trips made by sustainable transport while decreasing the trips made by motor vehicles.

Transportation 2040 also addresses the 21st Century challenge of rising fuel prices. In this regard, the plan notes that fossil fuel prices have increased significantly in the past decade and will continue to rise as global oil production peaks. By prioritising sustainable transport options, Transportation 2040 aims to reduce oil dependency which in turn is expected to help residents and the economy survive (and even flourish) in a post-carbon world.

The second 21st Century challenge addressed is climate change, which is already having impacts around the world. Conditions will continue to deteriorate unless greenhouse gas emissions are substantially reduced. In Vancouver, vehicles contribute to over 30% of greenhouse gas emissions. *Transportation 2040* prioritises transportation choices that don't use fossil fuels, or which use them more efficiently.

Vancouver's *Transportation 2040* is committed to increasing the total number of trips made by sustainable transport while decreasing trips made by motor vehicles. Furthermore *Transportation 2040* links transportation not just to mobility, but to public health, safety, accessibility, vibrant and resilient communities, and environmental well-being. WestConnex however does not establish these links. *Transportation 2040* demonstrates that an effective social, economic and environmental plan is achievable, notwithstanding the challenges of 21st century social life.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers requesting WestConnex be assessed against national and international best-practice transport plans and projects (SE7).

Recommendation: That Council requests DP&E to include in any conditions of approval a requirement to consider international best-practice transport plans and projects, to be used to guide management plans for Stage 3 (SE8).

The strategic economic impacts of WestConnex have been discussed in Part 2 *Justification for project* in this submission. These include the impact of the financial and opportunity cost of the project and the equity impact of tolls. At a local level, Council is disappointed that the EIS views the negative impact on local businesses as minor. From Council's recent experience with the impact of Stage 1 on Haberfield businesses, this was far from minor.

WestConnex Stages 1 & 2 have imposed a number of negative impacts on businesses which have failed to be identified and assessed in the EIS. These impacts include reduced accessibility for customers, staff and deliveries to business premises due to road

closures/diversions, changes in public transport services and loss of parking as construction vehicles occupy spaces side streets. This has been the most critical issue, particularly in shopping centres such as Haberfield.

In addition, the quality of business operations has been reduced from vibration disturbance and noise and air pollution. There has been an impact on the brand image of businesses because of reduced visibility created by obstruction of views by construction materials and reductions in passing traffic. An example of the latter issue is the drop in business in the Haberfield shopping centre due to the temporary closure of Ramsay Street.

For businesses with outdoor trading and dining, there has been decreased amenity for customers due to construction noise and increased traffic on some local roads where drivers avoid construction areas. There has been increased likelihood that newly-established businesses will fail due to combinations of the above pressures.

Of all the impacts listed above, it is the changes to road access, public transport and parking that has had the largest impact on businesses. The EIS does not acknowledge that it is the customer (not just the business) that cannot adjust to change in environment brought about through road closures, changes to public transport and parking in the project work zone.

From Council's experience with Stages 1 and 2, there is a real need to improving directional signage related to road closures, diversions and modifications in areas around shopping centres and other business clusters. Signs should clearly outline to businesses and the public the changes to road access points into business villages and centres, providing drivers with detailed directions into and around business villages. Signage should direct people to temporary bus stops locations, and this should be in large print and in languages additional to English. *Open For Business* signs are also helpful.

The parking demand impact of the project on local businesses is reduced wherever off-street parking is provided for project employees. In developing parking management plans, the proponent should consult with local businesses and business chambers. Other ideas include installation of bicycle lanes to encourage visitation to businesses, reduce vehicle speed limits and implement traffic calming (even if temporary) to enhance the footway environment at shopping strips.

Whilst it is acknowledged that the EIS recommends a business management plan be developed for Stage 3, there is also need for a dedicated full-time business manager, fully funded by the project, to implement the business management plan and to assist affected businesses on a day-to-day basis. This manager would work closely with Inner West Council and local businesses.

This manager would require access to funding to enable actions to be implemented, such as marketing campaigns to boost awareness of affected centres. Without this, responsibility for this kind of assistance to local businesses would fall on Council, as has been the case for Stages 1 and 2.

Recommendation: That Council requests the DP&E to include in any conditions of approval a requirement to appoint of a full-time business manager to implement a business plan for Stage 3 and to assist affected businesses on an as-needs basis (SE9).

There is a need to assess the economic impact on business centres from extending or creating clearways and widening roads.

The possibility that clearways on roads through commercial centres could be created or extended is a major concern for the many mainstreet businesses in the Inner West, as even minor changes can have a profound negative impact on these centres. The considerable opposition to any extension of clearways on King Street, Newtown provides a good example of the concerns of businesses and communities to this threat. Road widenings, such as that being undertaken currently on Euston Road, Alexandria are a further threat.

Elsewhere in this submission, Council has requested that the DP&E require in any conditions of approval that there be no new road widenings, clearways or extensions of clearways on streets around WestConnex. It has also been explained that Council seeks to implement, public and active transport improvements, traffic calming and amenity improvements on streets where traffic has been increased or reduced by WestConnex.

Recommendation: That Council writes the NSW Premier and/or relevant ministers seeking a commitment that no new or extended clearways or road widenings will be implemented on main roads or local streets as a result of WestConnex (SE10).

Recommendation: That Council requests the DP&E to require in any conditions of approval that no new or extended clearways or road widenings will be implemented on main roads or local streets as a result of WestConnex (SE11).

Finally, potential business opportunities should be identified in the development of the RRY recreation area, particularly as this area would improve walk/cycle connectivity between business centres in Rozelle, Lilyfield, Leichhardt and Annandale.

Recommendation: That Council requests the DP&E to include in any conditions of approval a requirement to investigation of the potential business opportunities for the Rozelle Rail Yards recreation area, provided this does not negatively affect the integrity of this space (SE12).

Beca's assessment of social and economic impacts should also be considered.

Recommendation: That Council requests the DP&E to require, prior to any approval, an assessment of Beca's comments and recommendations in relation to Part 10 of Council's submission – *Social & economic impacts* (SE13).

PART 10: URBAN DESIGN & VISUAL AMENITY

This part relates to EIS Chapter 13: *Urban design & visual amenity*.

There is a need for involvement of Council and the community in the design of the RRY recreation area and other residual lands.

The following comments focus on the RRY recreation area, given this is the main site that will be returned to public use from Stage 3. Though there is limited information within the EIS on urban design details for this site, Council expects that should the project proceed there will be opportunities for Council and the community to participate in the development of an urban design plan for the site. Hence comments in this submission are offered as initial comments only.

Council recognises there the need for open space and community facilities across the Inner West. Some areas have traditionally had a shortfall, and demand will increase into the future as the population increases through redevelopment. This is particularly the case for the RRY site, where densely-developed residential areas around the site have traditionally

suffered a shortfall of open space, and future development at the Bays Precinct will bring substantial new development.

Council sees the need for a clear 'recreational needs' basis for the use of the area with reference to Council's *Recreation & Open Space Needs Study*. As is the case for the St Peters Interchange recreation area, Council is keen to boost the supply of much-needed active recreation areas. From the concepts in the EIS, there appears more opportunity to provide active recreational facilities.

Considerations in the design of residual lands include roadside or ventilation facility air quality impacts, walk/cycle desire lines, links to the wider network of paths and open spaces, safety-by-design, equity of access, aesthetics and public art. It is expected that should the project proceed, Council and the community will be involved the design of the RRY recreation area and other Stage 3 residual lands through development and implementation of urban design and residual lands plans, mandated by conditions of approval.

Given the RRY site is isolated by a number of barriers including roads, cliffs and the light rail line, active uses on the site (including evening uses) would provide security benefits from surveillance and enhance the community's enjoyment of this facility. This could include night-time sports and youth-focused outdoor and indoor recreation facilities.

Being a former creek-line, management of stormwater on the RRY site is a major task. All stormwater facilities should be integrated and where appropriate featured, with Water Sensitive Urban Design (WSUD) implemented. Wetlands (as proposed) are supported and these should be integrated into landscaping, not fenced. Use of concrete culverts should be minimised. Aboriginal and non-Aboriginal heritage should also be featured in landscape designs for the RRY recreation area.

The other area of importance for urban design is the area along Victoria Road near the Iron Cove Bridge that will be improved as a result residual lands from road widening and significant traffic reductions from the Iron Cove Link tunnel. As with all residual lands from WestConnex, Council wishes to avoid the creation of useless pieces of open space that could create safety or security issues.

Active edges to this strip of land through developments (business, residential or community uses) that front onto this space are needed to enhance security. This is preferred to the space being framed by blank side noise barriers or rear dwelling fences, although Council acknowledges there will be a need for some noise buffering. Being next to Victoria Road, indoor community uses may be appropriate as well as open spaces.

Recommendation: That Council requests the DP&E to include in any conditions of approval a requirement for involvement of Council and the community in the design of the Rozelle Rail Yards recreation area, Iron Cove Link site and other residual lands (UD1).

There is a need for the design of the RRY recreation area to maximise walk/cycle connectivity to and consider rights-of-way for future public transport.

Council is also keen to maximise walk/cycle connectivity to/from all adjoining streets and Easton Park connecting to the new areas. There are many opportunities to do this on the northern site, but the City West Link Road is a barrier on the southern side and there will be reliance on three proposed bridge connections - two over City West Link Road and one over The Crescent. Three access points provided by these bridges is considered sufficient, as they are reasonably evenly spaced across the length of the RRY site.

It is also important that the existing walk/cycle connections over Victoria Road to the Anzac Bridge, to White Bay and to the Rozelle and Balmain area be improved by the project. Providing both ramp and stair links to the eastern and western sides of Victoria Road are also important.

Elsewhere in this submission Council has outlined its support for retention of rights-of-way for future public transport. Accordingly it is critical that the proposed walk/cycle link through the freight rail tunnel under Victoria Road should not preclude a future light rail link to White Bay. This issue must be considered now to ensure the right-of-way is not severed.

Recommendation: That Council requests the DP&E to include in any conditions of approval a requirement to maximise walk/cycle connectivity to and provide rights-of-way for future public transport in the design of the Rozelle Rail Yards recreation area (UD2).

There is a need to minimise the number and extent of motorway support facilities in the RRY recreation area.

Council is disappointed at the number and extent of motorway support facilities planned for the RRY site. This was not so apparent in the Concept Design, but the EIS shows that these facilities would occupy a fair proportion of the site, break up useable areas and create a sense of clutter. With careful design and consolidation of these facilities, it should be possible to accommodate these facilities without hindering free movement open vistas around the site.

Similarly, mounding of turfed areas to accommodate motorway portals should be minimised. Mounding could isolate playing fields, and when combined with the barrier of City West Link Road could enclose playing fields on three sides. This is a further reason why improving physical and visual links to the many streets in Lilyfield to the north is important.

Recommendation: That Council requests the DP&E include in any conditions of approval a requirement to minimise the number and extent of motorway support facilities in the RRY recreation area (UD3).

There is a need for careful management of car parking and traffic for the RRY recreation area.

In view of the expected high levels of walk/cycle traffic to and through the RRY recreation area, speed reductions should apply to all streets around the site. As far as possible, parking for the RRY recreation area should be on surrounding streets, not within the park, as Council is keen to ensure recreation space is not lost to parking. It is expected a high proportion of trips to the RRY recreation area would be by means other than car given the walk/cycle links to surrounding densely-developed residential areas and the ability to access the site by light rail.

Recommendation: That Council requests the DP&E to include in any conditions of approval a requirement for development of a parking and traffic management plan to guide the design of the Rozelle Rail Yards recreation area (UD4).

There is a need for further assessment of options to reduce the visual impacts of all Stage 3 ventilation facilities.

The proposed 20-30m tall ventilation facilities within the RRY recreation area near The Crescent will inevitably be a major visual intrusion. The extent of this intrusion should be minimised, noting that any reduction in the height of this facility would reduce its ability to

disperse emissions. Similarly, the proposed facility at Victoria Road near Terry Street is located in a visually prominent position, and consideration should be given to an alternative facility design which would be less prominent and would be unlikely to direct its plume toward adjacent sensitive uses.

Recommendation: That Council requests the DP&E to require in any conditions of approval measures to minimise visual impacts of all Stage 3 ventilation facilities, with a focus on the facilities in the RRY site and on Victoria Road near Terry Street (UD5).

There is a need to minimise the visual impact of directional signs and variable message signs associated with the project.

A further visual impact issue Council has encountered in relation to Stage 1 is the erection of large standard directional signs and variable message signs. This has been a particularly important issue for Haberfield as this suburb is a Heritage Conservation Area. Council has argued that if they are to be erected, then the number, size, height and bulk should be minimised and they should be located to avoid sensitive locations.

Council recognises there are RMS standards for these signs, but has sought exemption from these standards to reduce their size and minimise visual impacts. Council has also sought to ensure sign footings do not obstruct to walk/cycle paths of travel on footways. These points should be considered for any signs proposed in relation to Stage 3.

Recommendation: That Council requests the DP&E to include in any conditions of approval measures to minimise visual impacts of roadside directional signs and variable message signs associated with the project (UD6).

Beca's assessment of urban design and visual amenity impacts should also be considered.

Recommendation: That Council requests the DP&E to require, prior to any determination, an assessment of Beca's comments and recommendations in relation to Part 11 of Council's submission – *Urban design & visual amenity* (UD7).

PART 11: SOIL QUALITY, WATER QUALITY & CONTAMINATION

This part relates to EIS Chapters 15: *Soil & water quality* and 16: *Contamination*;

Council is concerned about disturbance of contaminants at the RRY site and requests monitoring and notification.

The most critical area where issues around soil and water quality and contamination are likely to be encountered is around the RRY site and The Crescent construction areas. For the former site, requirements have already been imposed as part of the approval of the Review of Environmental Factors (REF) for the surface clean-up of the RRY site, but additional requirements are needed for the substantial works proposed by the EIS.

Council notes that extensive soil and groundwater contamination has been previously found throughout the entire RRY site due to past contaminating activities from its former railway uses. Contamination is to be managed via an environmental management plan. Should works reveal any unexpected finds relating to contamination Council should be notified.

For the RRY site, Council and the community are particularly concerned about disturbance of asbestos within the surface soils on the site. Council notes the proponent will continue to

monitor airborne asbestos, and its disposal will be guided by appropriate management plans. Council recommends the proponent keeps Council and surrounding residents informed of the results of asbestos monitoring and any asbestos issues as they are encountered.

Recommendation: That Council requests the DP&E to include in any conditions of approval a requirement for a contamination management plan that requires dust monitoring (in recognition asbestos risks) for works on the Rozelle Rail Yards site and notification of Council about discovery of contaminants (SC1).

Further information is sought about the mobilisation of contaminants and erosion potential on construction sites.

Further concerns particularly concern is expressed that the following elements have not been adequately addressed, in terms of the impact of construction and the final design: mobilisation of contaminants during construction, including hydrocarbons, heavy metals, asbestos and other toxins, particularly in relation to the RRY site. A further assessment is needed on erosion potential both during and after construction, particularly in relation to the RRY and Darley Road sites.

Recommendation: That Council requests the DP&E to include in any conditions of approval a requirement for a contamination management plan that details mobilisation of contaminants and erosion potential on construction sites (SC2).

There are a number of policies and standards that will need to be considered to ensure water quality is maintained.

In developing management plans for water quality, stormwater and drainage, there are a number of policies that should be considered that will assist with implementation of best practice. These include: the *Marrickville Strategy for a Water Sensitive Community 2012 – 2021*; *Marrickville Development Control Plan 2011, Chapter 2.17 Water-Sensitive Urban Design (WSUD)* and Chapter 2.19 *Green Roofs & Walls*; and *Opportunities for a Water Sensitive Greater Sydney* - Greater Sydney Commission.

Council supports the EIS's position to achieve best practice water quality outcomes for the entire project. Council supports adopting the NSW Water Quality Objectives, Australian & New Zealand Environment Conservation Council (ANZECC) *Water Quality Guidelines*, Sydney Harbour and Botany Bay *Water Quality Improvement Plans*. However, the EIS shows the stormwater mean annual pollutant load reduction targets will not be achieved for the project or for the individual catchments based on the possible treatment measures.

The EIS shows Model for Urban Stormwater Improvement Conceptualisation (MUSIC) modelling results for operational water quality' shows that the project fails to meet 20 out of 25 pollutant reduction targets. Council is concerned that at this early stage of developing the project design, the targets are apparently not a priority as there appears to be a lack of application by the project to meet suitable targets.

Council and the Cooks River Alliance councils currently apply the targets set by the *Botany Bay Water Quality Improvement Program* (BBWQIP) recommended by the NSW Government as they set the appropriate targets designed to improve water quality and reflect pollutant loads associated with the land uses in the catchment area, including for phosphorous and nitrogen.

All levels of government and catchment councils have invested significant resources and funding into improving the Parramatta and Cooks rivers, working to achieve the desire to

“swim in the river.” The project must avoid impacts on the Cooks River, Sydney Harbour and Parramatta River catchments. The construction and maintenance of WestConnex should be consistent with this objective. It must be noted that the Cooks River councils are working to make the Cooks River swimmable with the backing of the Commonwealth and State governments.

During construction, soil erosion would need to be adequately managed in accordance with *Managing Urban Stormwater: Soils and Construction Volume 1* (Landcom 2004) and *Managing Urban Stormwater: Soils and Construction Volume 2* (NSW Department of Environment and Climate Change 2008a). As highlighted in the EIS, water quality treatment should be installed in the construction area and/or the immediate vicinity. All water including runoff leaving the construction sites, rail corridors and associated infrastructure must be managed and treated to achieve the BBWQIP targets.

Temporary construction water treatment facilities within construction ancillary facilities should be designed to treat dirty construction water and groundwater and be based on the targets outlined in BBWQIP Section 15.1.5, which would be refined during detailed design. The level of treatment provided would consider the characteristics of the water body, any operational constraints or practicalities and associated environmental impacts and be developed in accordance with ANZECC (2000) and in consideration of the relevant NSW water quality objectives.

NSW *Water Quality and River Flow Objectives* and ANZECC 2000 guidelines are not sufficient for avoiding impacts on the Cooks River and Parramatta River catchment. Council and the Cooks River Alliance councils currently apply the targets set by the Botany Bay Water Quality Improvement Program (BBWQIP) recommended by the NSW Government as they set the appropriate targets designed to improve water quality and reflect pollutant loads associated with the land uses in the catchment area, including for phosphorous and nitrogen.

Considering the highly disturbed nature of all receiving waterways and temporary nature of the construction phase, an Australian & New Zealand Environment Conservation Council (ANZECC 2000) species protection level of 90 per cent for toxicants is considered appropriate for adoption as a discharge criterion, where practical and feasible. The discharge criteria for the treatment facilities should be included in the relevant project management plan.

Contrary to the statement in the EIS, the fact that the aquatic environments are highly disturbed emphasises the need to prevent polluted water entering watercourses during construction. Therefore, all water including runoff leaving the construction sites, and associated infrastructure must be managed and treated to achieve the BBWQIP targets.

Stormwater runoff from the project should be controlled by a stormwater quality treatment system, designed in accordance with the project stormwater quality objectives based on pollutant load reduction consistent with the Sydney Harbour and Botany Bay water quality improvement plans rather than a specific rainfall event. All water including runoff leaving the construction sites and associated infrastructure must be managed and treated to achieve the BBWQIP targets.

The EIS states that considering the existing groundwater quality and proposed treatment, impacts on ambient water quality within Rozelle Bay and Hawthorne Canal are likely to be negligible. There is potential for sediment to be scoured and mobilised where stormwater or wastewater is discharged to receiving waterways and bays including Hawthorne Canal, Dobroyd Canal (Iron Cove Creek), Rozelle Bay, Iron Cove and Whites Creek. This could

increase turbidity and lead to mobilisation of contaminants that are bound to sediments. Net loss of any vegetation at re-establishment of Whites Creek should be avoided.

It is noted that new discharge outlets will be designed with appropriate energy dissipation and scour protection measures as required to minimise the potential for sediment disturbance and re-suspension in the receiving waters. Outlet design and energy dissipation/scour protection measures will be informed by drainage modelling. Mixing of contaminants would be likely in these conditions and would add to contamination present in the sediment from years of accumulation. This contamination would add to the bioaccumulation in local birds and other fauna, as well as vegetation. Therefore, Council supports energy dissipation and scour protection on drainage outlets.

This project, combined with other smaller developments within the vicinity of the project area are likely to be significant. For example, dust emissions have the potential to significantly reduce air quality, especially if weather conditions are dry. Increased construction traffic will have impacts on noise, air quality and safety, and construction will have impacts on water quality unless sediment and erosion controls are strictly enforced ongoing.

All damage and removal of vegetation and native habitat should be replaced on-site or at a minimum, offset locally with funding and resources provided to councils and others charged with responsibility to do this and manage the sites ongoing.

Recommendation: That Council requests the DP&E to include in any conditions of approval a requirement for relevant management plans to incorporate water quality policies and standards recommended by Council in its submission (SC3).

Beca's assessment of soil quality, water quality and contamination impacts should also be considered.

Recommendation: That Council requests the DP&E to require, prior to any approval, an assessment of Beca's comments and recommendations in relation to Part 12 of Council's submission – *Soil quality, water quality & contamination* (SC4).

PART 12: FLOODING, DRAINAGE & GROUNDWATER

This part relates to EIS Chapters *17: Flooding & drainage* and *19: Groundwater*;

Further details on flooding & drainage are needed to assess potential impacts areas surrounding all project sites.

While the EIS proposes that the project will be prepared with recognition to the various flood management plans and policies currently in place, Council is not convinced that the many critical issues associated with flooding and drainage have adequately been addressed in the EIS.

It is acknowledged that it is in the interests of the project to ensure compliance with design protocols for flooding. However, as mentioned elsewhere in this submission, Council is concerned that the Stage 3 design as shown in the EIS is a draft that is likely to alter at a later stage in the planning process. Council cannot therefore determine with certainty that the project will not have a flooding and drainage impact on areas outside the project.

Recommendation: That Council request the DP&E to require, prior to any determination, a detailed flooding and drainage assessment based on final project designs (FG1).

It is noted from the EIS that measures will be implemented to ensure protection of sensitive marine species and nearby protected wetlands, both during and after construction. Key locations include Johnston's Creek, Iron Cove Creek, Hawthorn Canal/Long Creek and Whites Creek catchments and sensitive marine habitats in Rozelle Bay, White Bay and Iron Cove.

These locations are considered essential to both local and regional environments and must be protected from surface run-off, stormwater deluge and potential spills at construction sites. In preparing appropriate habitat protection strategies it is essential to recognise Sydney Water's on-going plans to naturalise watercourses within the Inner West, including Whites Creek and Iron Cove Creek.

In addition to run-off there is potential for elevated soil salinity and induced water table changes resulting from both tunnelling activities (during construction) and the long term presence of deep tunnels. Such impacts could include impacts on local aquifers, potential for an elevated water table and redirection of groundwater flows.

There is potential for impacts on the adjacent stormwater network, particularly during construction; noting that excess stormwater created by the tunnel should not be diverted into the existing stormwater system.

Stormwater, ground water and drainage monitoring should be operational prior to commencement of construction (establishing an hydraulic baseline) and should continue from that onward including a systematic review and rectification program

A detailed flood mitigation strategy should be submitted for Council, community, Sydney Water and State Emergency Services input prior to approval of the project. With such a strategy not worsening, and ideally improving upon existing conditions.

Comprehensive floodplain assessments and hydraulic modelling should be supported by a series of appropriate mitigation measures to ensure that no property (private or public) shall be disadvantaged or adversely affected.

While Council could provide a detailed set of conditions and constraints it is currently considered that information in the EIS and the existing level of detail provided by the design is insufficient to provide further extensive and reliable comment. Consequently Council requests that determination of the project be withheld until such a time as detailed design, plans and modelling can be provided, with Council, the community, and other key stakeholders permitted to review and comment.

There will also need to be consideration of the project's impact on Sydney Water's Iron Cove Creek renewal proposal at Haberfield / Five Dock and whether the combined Stage 1 and Stage 3 will delay its implementation or cause adverse impacts on this waterway.

Recommendation: That the DP&E includes in any conditions of approval a requirement for stormwater and run-off management plans that include wetland habitat protection strategies and detail the impact of the project on Sydney Water's Iron Cove Creek renewal proposal (FG2).

Recommendation

There is a need for a further assessment of the potential for cracking of buildings from ground settlement caused by groundwater withdrawal.

Potential impacts from groundwater withdrawal induced settlement on properties raises concern, and this has not been adequately addressed in the EIS. The EIS has not properly addressed Item 10(b) of the Secretary's Environmental Assessment Requirements (SEARS), as property or infrastructure where the predicted settlement criteria will be exceeded have not been identified. Settlement of this kind would be expected to occur over the operational life of WestConnex.

Nor does the EIS does prescribe responsibility for a construction-settlement monitoring program, but implies this may sit with the construction contractor, which would be a conflict of interest.

The EIS States that *"The preliminary assessment shows that over the majority of the tunnel alignment predicted ground movement is less than 20 millimetres which would be consistent with the criteria."* This is misleading as the EIS recognises the potential impact on buildings due to settlement induced by groundwater withdrawal. Estimates of ground movement in the EIS exclude the impact of groundwater drawdown, as stated: *"The preliminary assessment does not include prediction of settlement as a result of groundwater drawdown (consolidation settlement)."*

The studies undertaken for the EIS predict ground water withdrawal will permanently impact ground water levels at the end of construction up to 500m either side of the tunnel alignment and up to 1.4km over the longer-term in some areas. This modelling predicts that at the end of construction, steep localised cones of depression will develop beneath Newtown and St Peters within the Ashfield Shale.

The EIS also states the risk of ground movement from groundwater drawdown is lessened where tunnelling is more than 35 metres. However, some tunnelling in areas near portal and underground interchanges will be far shallower than this. Steep gradients are likely to cause greater differential settlement with potential damage to buildings in the area. Localised modelling (required by the SEARS) is possible, but has been deferred to be undertaken by the construction contractor.

As this modelling has not been undertaken at the EIS stage, there is no information about which properties may be subject to potential exceedances of settlement criteria. The EIS does not state who will undertake the precondition surveys, how the findings will be published and who will be liable for 'make good' should the criteria be exceeded in practice. The EIS implies this may be the responsibility of the construction contractor, which again, would be a conflict of interest.

The EIS must prescribe responsibly for the settlement monitoring program, as settlement damage may continue for the operational life of the project, as groundwater withdrawal and settlement damage is likely to occur well after construction is completed.

Recommendation FG: That the DP&E requires, prior to any determination, an assessment of the potential for cracking of buildings from settlement caused by tunnel-induced groundwater withdrawal (FG3).

Concerns are also raised about the potential for saline water intrusion into the foreshore areas due to depletion of groundwater table along the proposed tunnels. The impact of sea level rise on this has not been addressed adequately in the EIS.

Recommendation FG: That Council requests the DP&E to require, prior to any determination, an assessment of the potential for saline water intrusion caused by tunnel-induced groundwater withdrawal (FG4).

Beca's assessment of flooding, drainage and groundwater impacts should also be considered.

Recommendation: That Council requests the DP&E to require, prior to any approval, an assessment of Beca's comments and recommendations in relation to Part 13 of Council's submission – *Flooding, drainage & groundwater (FG5)*.

PART 13: BIODIVERSITY & HERITAGE

This part relates to EIS Chapters 18: *Biodiversity*, 20: *Non-aboriginal heritage* and 21: *Aboriginal Heritage*. It also relates to Issue 11 in Council's submission on the Concept Design: *"Impact of clean-up of RRY site on heritage and biodiversity - lack of consideration of retention of rail heritage features in-situ and staging of site clearing to minimise biodiversity impacts."*

There is a need to manage biodiversity impacts through staging of works at the RRY site and at other construction sites.

The key site affected by the project that raises biodiversity issues for Council is the RRY site. There are other smaller areas where biodiversity would be affected, but the principles that need to be applied to manage biodiversity within the RRY site can be applied to these other areas.

In its December 2017 submission on for the surface clean-up of the RRY site, Council also raised a number of site-specific issues including minimisation of biodiversity impacts. Council staff discussed these issues at a meeting with relevant project staff during the REF exhibition and at a June 2017 site visit. Although Council is satisfied that SMC is aware of these issues, concerns remain that they have not been resolved to Council's satisfaction.

The main concern is that there has not been sufficient consideration of how works can be staged to minimise impacts on fauna, particularly native reptiles and birds. In order to retain fauna on-site, it is critical that a minimum area of habitat be retained at each stage of the clean-up and other works on the RRY site. Council seeks reassurance that this can and will be achieved.

Council had noted in 2016 that whilst the proponent had not undertaken a full fauna survey, it has undertaken a threatened species survey, and no threatened species have been found on the site. Notwithstanding, Council recommends that further fauna surveys be carried out to determine the presence of locally vulnerable species - named as *"target species"* in the report *Avian Biodiversity Monitoring & Bird Habitat Management within the Leichhardt LGA* (Saunders 2008). Further, that if present, these species are included in the *Flora and Fauna Management Plan*.

The RRY site contains the most extensive areas of native small bird habitat in the area. The plant species that make up this habitat are for the most part exotic weed species. It is a common practice in inner urban areas to preserve these habitats regardless of the fact that they are weedy. Preservation of this habitat should, where possible, be a priority in the flora and fauna management plan for the site.

The RRY site is recognised regionally as an important biodiversity corridor, i.e. the Greenway. Loss of species from the RRY site would undoubtedly compromise the biodiversity conservation outcomes Council expects for the Greenway.

The project will also need to generally consider impacts on species listed as vulnerable according to NSW Government legislation. These species include the Eastern Bentwing (EBW) Bat. Though the EIS has noted its likelihood of occurrence as 'moderate', Council is of the view that its likelihood of occurrence is 'high'.

Council has recorded EBW Bat regularly from 2014-2016 at Whites Creek, in Dulwich Hill in 2014 and regularly along the Cooks River from 2012 to 2017. Council has an EBW Bat winter roost site at Cadigal Reserve. The City of Sydney has also recorded Eastern Bentwing Bat sightings regularly at Sydney Park from 2013 to 2016. Council recommends the project include a bat box program and revegetation to offset potential future impacts.

The EIS identifies 1,675 trees for removal. For any proposed removals, Council requests that an assessment is undertaken by a suitably qualified ecologist of the impact of tree removal on fauna habitat, e.g. bird nesting. This would be undertaken prior to removal and any fauna found be relocated.

Small and large logs should be stored for use as habitat in revegetation areas. Nest boxes should be installed for locally-significant fauna and threatened bats to offset loss of habitat. In the absence of suitable dense and complex native vegetation, weeds such as Lantana are providing important breeding and foraging habitat for locally-significant small birds and reptiles, which are declining in number. Council requests that the same hierarchy for trees is applied to other vegetation including weeds, i.e. retain, avoid, replace.

In the event of loss of vegetation, there should be local native vegetation replacement on site where possible, or offsets in consultation with Council. Offset plantings would be on a strategically-located Council biodiversity site in a similar way to that proposed in the EIS for a loss of trees by the EIS. Council is also concerned about potential loss of aquatic biodiversity from Whites Creek.

Works around the Rozelle Railyard will require heritage and environmental safeguards, which are site specific and may not be currently covered by the conservation management plan for the canal within the site. Council must be included in consultations with the EPA and SMC on this matter.

Recommendation: That Council requests the DP&E to include in any conditions of approval a requirement for a flora and fauna management plan for the RRY site that includes further flora/fauna survey information and requires habitat replacement, vegetation offsets and staging of clearing works to minimise biodiversity impacts (BH1).

Although adaptive re-use of rail heritage fabric is proposed, there is a need to retain some rail heritage on the RRY site in-situ.

Regarding rail heritage, Council was informed at the time the RRY site REF was being assessed that the significant rail heritage items would be re-used, i.e. integrated into the landscaping of the RRY recreation area. Council agrees there is a role for re-use but had argued that some of the more significant items be retained in-situ so the site's rail heritage more accurately interpreted by future users of the recreation area. The proponent has not agreed to the retention of rail heritage item in-situ.

Regarding heritage buildings on the RRY site, Council notes there are no listed heritage buildings or other items. Council previously expressed some concern any proposed demolition of the Port Authority building, as this could be a potential item of local heritage significance.

Recommendation: That Council requests DP&E include in any conditions of approval a requirement for retention of some rail heritage in-situ, in addition to adaptive re-use. Consideration to be given to retention of the Port Authority building on the site (BH2).

Regarding non-Aboriginal heritage, Council seeks retention and conservation of some buildings and preparation of a strategy for re-use of salvaged material.

Outside the RRY site, Council's assessment of non-Aboriginal heritage concurs with most of the heritage conclusions in the EIS, particularly, where the EIS has found that the demolition of the identified heritage-significant properties would have a "major adverse" heritage impact.

The exceptions include some of the properties within the Iron Cove heritage study area (C8) where a greater proportion of the buildings are considered to have heritage significance than those acknowledged by the EIS – for example, 244 and 256 Victoria Road, Rozelle. These are two rare timber cottages, with grooves in their weatherboards to give the illusion they are built of stone. No. 244 is intact externally and internally.

With regard to landmark significance and ongoing conservation, it is noted that the former Bank of NSW Building at No.164 Parramatta Road at Annandale is not protected under any current local statutory heritage controls. However this landmark Parramatta Road building located within the Camperdown/ Parramatta Road Precinct demands special consideration for its retention and conservation.

Evidence within the EIS shows that this building was designed by well-known former Sydney Architectural Firm - Spain and Cosh, who designed Australia's tallest building prior to the commencement of World War I - the Culwulla Chambers, Pitt Street, Sydney. The firm also designed the heritage-significant Marcus Clark Building at Railway Square, amongst many other notable Sydney buildings.

Conservation could be achieved by altering (enlarging) the ancillary facility boundaries of the Pymont Bridge Road construction site to provide for its conservation in-situ. The loss of this building would have significant adverse historical and aesthetic impacts on the Parramatta Road corridor.

Recommendation: That Council requests DP&E to include in any conditions of approval a requirement for a heritage salvage strategy applying to all properties with salvageable historical elements - not just those properties that are heritage-listed or located within heritage conservation areas. In some cases this could include the salvage of whole buildings for reconstruction on another site by the receiver of the materials (BH3).

Recommendation: That Council requests DP&E to require in any conditions of approval a requirement that archival reports be completed for all listed properties and properties nominated as having potential heritage significance in the EIS – as well as 244 and 256 Victoria Road, Rozelle (BH4).

Recommendation: That Council requests DP&E to include in any conditions of approval a requirement for an interpretation strategy provide for reuse of salvaged fabric and informative interpretive signage information within each of the specific study areas where demolitions are to occur, not just within one central location (BH5).

Recommendation: That Council requests DP&E to include in any conditions of approval a requirement that the amenity of all heritage-significant properties left standing adjacent to construction sites (regardless of their listing) be appropriately protected. Their significant features are to remain intact and their setting improved

by the proposed landscaping works so that their heritage significance and value is not further diminished (BH6).

Recommendation: That Council requests DP&E to include in any conditions of approval a requirement that the former Bank of NSW building at No.164 Parramatta Road at Annandale be retained and conserved by realigning the boundaries of the Pymont Bridge Road construction site (BH7).

There is a need to ensure ‘unexpected find’ protocols are in place to conserve Aboriginal places, objects or deposits.

The EIS indicates that surveys and consultation have been undertaken in accordance with the prescribed *Procedure for Aboriginal Heritage Consultation and Investigation* (PAHCI). These have revealed no directly-impacted sites of significance within the project’s boundaries or area of influence. The absence of surface finds and recorded sites does not ensure the absence of sub-surface finds during construction.

Council concurs with the proposed EIS protocols that prior to construction a suitably qualified archaeologist should visit the one-recorded site outside the project area to confirm its current condition. Council also concurs with the procedure that should any unexpected finds of aboriginal places, objects or deposits be identified during construction the Standard *Management Procedure for Unexpected Heritage Items* (RMS 2015) is to be followed.

Further to this, Council requests that should any unexpected finds be discovered, all disturbance of the area should cease immediately and the NSW Office of Heritage & Environment be informed in accordance with S89A of the National Parks and Wildlife Act 1974.

Recommendation: That Council requests the DP&E to include in any conditions of approval a requirement for adoption of NSW ‘unexpected find’ protocols for items of aboriginal heritage (BH8).

Beca’s assessment of biodiversity and heritage impacts should also be considered.

Recommendation: That Council requests the DP&E to require, prior to any approval, an assessment of Beca’s comments and recommendations in relation to Part 14 of Council’s submission – *Biodiversity & heritage* (BH9).

PART 14: ENVIRONMENTAL, HAZARD & RISK FACTORS

This part relates to EIS Chapters 23: *Resource use & waste minimisation*, 25: *Hazard & risk*, 26: *Cumulative impacts* 28: *Environmental risk analysis* and 29: *Summary of environmental management measures*;

Cumulative construction impacts are a major issue for Council and cumulative operational impacts are also a concern. These issues are mainly discussed in Part 3 *Air quality* and Part 4 *Construction work*.

There is a need to develop management plans for hazardous and emergency situations.

Regarding hazard and risk, it is a concern to Council that the EIS does not appear to consider development of plans for situations such as traffic crashes, ventilation disruptions and tunnel fires.

Recommendation: That Council requests the DP&E to include in any conditions of approval a requirement to develop a management plan for hazardous and emergency situations, such as crashes, ventilation failures and tunnel fires (ER1).

Council is concerned that the EIS has defined the project as low risk, and yet indications within the EIS show key indicators that contradict this.

The EIS indicates that community attitude indicators for a Low Consequence rating is “complaints”. The community attitude indicators for high levels of risk are: medium rating – daily complaints; high rating – community protests; and extreme rating – severe community protests. Based on Council’s experience of the very high number of complaints and protests, it is clear that the community indicator for WestConnex should be regarded as substantially higher than merely “complaints”.

Recommendation: That the DP&E requires, prior to any determination, a re-assessment of the EIS consequence criteria rating to account for the high number of complaints and protests associated with this project (ER2).

Beca’s assessment of environmental, hazard and risk factors should also be considered.

Recommendation: That Council requests the DP&E to require, prior to any approval, an assessment of Beca’s comments and recommendations in relation to Part 15 of Council’s submission – *Environmental, hazard & risk factors* (ER4).

PART 15: SUSTAINABILITY & CLIMATE CHANGE

This part relates to Chapters 22: *Greenhouse gas*, 24: *Climate change risk & adaption* and 27: *Sustainability*.

There is a need to assess the project’s impact on climate change, including the ‘heat island’ effect from roads and associated facilities.

The SEARs only require the EIS to address the impact of climate change on the project, rather than the project’s impact on climate change. Consequently, the EIS assessment of environmental (and climate change risk) simply indicates that the likelihood of the project being placed at risk by the environment is “low”. How this rating is achieved is unclear in the EIS particularly given that the EIS’s detailed risk assessment for 2090 under a high scenario identifies 17 ranks of medium or higher in the risk level assessment column.

Further, the EIS does not consider the ‘heat island’ impacts of road surfaces, ventilation facility surfaces, ventilation plumes and heat from additional traffic induced by WestConnex - engine heat, road surface friction etc. There is a need to soften surface of vents both visually and to reduce the heat island effect.

Urban heat island effect is recognised as an existing issue in the local urban environment in the *Climate Change Plan 2015 – 2025* and *Urban Heat Mapping* (Landsat 5 TM derived land surface temperature, data sourced from Geoscience Australia and CSIRO). Therefore urban designs for the project should seek to mitigate urban heat through green infrastructure and creation of an urban tree canopy.

Recommendation: That Council requests the DP&E to require, prior to any determination, an assessment of the project’s impact on climate change, including the ‘heat island’ effect from roads and associated facilities (CC1).

By promoting car use and urban sprawl, the project is inherently unsustainable.

Construction of an urban motorway project with an induced traffic demand of 45,000 additional car trips per day is considered counter to accepted best practice in the creation of liveable, sustainable cities.

Recommendation: That Council writes to the NSW Premier and/or relevant ministers expressing the view that by promoting car use and urban sprawl, WestConnex is counter to accepted best-practice in the creation of liveable, sustainable cities (CC2).

Beca’s assessment of sustainability and climate change impacts should also be considered.

Recommendation: That Council requests the DP&E to require, prior to any approval, an assessment of Beca’s comments and recommendations in relation to Part 16 of Council’s submission – *Sustainability & climate change* (CC3).

RECOMMENDATIONS

Throughout the submission are recommendations that respond to the main issues raised in Council’s assessment of the EIS. They are within the body of the submission following each issue raised, and have been identified with a code and number to ensure they can be linked to the relevant issue within the submission.

The recommendations have been further divided into the following three categories:

- Recommendations that raise strategic and/or critical matters from the Stage 3 EIS that Council seeks to convey to the NSW Government. These recommendations begin with: *“That Council writes to the NSW Premier and relevant ministers ...”*
- Recommendations that request the DP&E to require further assessment work to be undertaken on an issue raised by the EIS prior to any determination. These recommendations begin with: *“That Council requests the DPE to require, prior to any determination ...”*
- Recommendations that request DP&E to include certain matters within any conditions of approval. These recommendations begin with: *“That Council requests the DP&E to include in any conditions of approval ...”*

Each recommendation is given a code according to its origin in Council’s submission – as follows:

- *Part 1: Assessment process & consultation – AC;*
- *Part 2: Justification for project – JP;*
- *Part 3: Air quality impacts – AQ;*
- *Part 4: Construction work – CW;*
- *Part 5: Operational traffic & transport – TT;*
- *Part 6: Noise & vibration – NV;*
- *Part 7: Human health risk – HR;*

- *Part 8: Land use & property – LP;*
- *Part 9: Social & economic impacts – SE;*
- *Part 10: Urban design & visual amenity – UD;*
- *Part 11: Soil quality, water quality & contamination – SW;*
- *Part 12: Flooding, drainage & groundwater – FG;*
- *Part 13: Biodiversity & heritage – BH;*
- *Part 14: Environmental, hazard & risk factors – ER; and*
- *Part 15: Sustainability & climate change – CC.*

A full list of submissions divided into these three categories is as follows:

That Council writes to the NSW Premier and/or relevant ministers:

1. raising concerns about the short time period between public exhibition Concept Design and exhibition of the EIS, not allowing sufficient time for comments on the former document to influence the latter. This signals to Council and the community that consultation for WestConnex Stage 3 is tokenistic and has been rushed (AP1);
2. expressing concern that the requested modest extension to the WestConnex Stage 3 EIS exhibition period has not been granted (AP2);
3. requesting the DP&E publicly exhibits, prior to any determination, the WestConnex Stage 3 *Preferred Infrastructure Report*. This is to allow Council and the community to comment on further assessments undertaken and final designs prior to any determination (AP3);
4. raising concerns about delivery of WestConnex by a corporation, seeking a transfer of delivery from SMC to RMS (AP5);
5. to express its concerns about the possibility that the Rozelle Interchange may proceed in a significantly altered form or as a separate project given recent reports about the difficulties involved in its construction (AP6);
6. expressing the view that all stages of WestConnex should be abandoned, as should proposed motorways Sydney Gateway, Western Harbour Tunnel & Beaches Link and F6 extension (JP1);
7. forwarding a copy of Council's letter to the Minister for WestConnex and include Council's 3 October 2017 resolution regarding Council's position on WestConnex (JP2);
8. to request that Stage 3 of the project not be approved. Prior to any further consideration of the Stage 3 EIS, an inquiry should be held into all parts of WestConnex examining issues with the project's business case, flawed Stage 3 EIS and unacceptable construction and operational impacts. Findings of the inquiry to determine whether Stage 3 should proceed and to recommend improvements to Stages 1 and 2 in relation to its design, conditions of approval and environmental licensing to reduce currently unacceptable impacts (JP3);
9. to express its concerns about a number of fundamental flaws in the Stage 3 EIS, including flawed traffic and air quality modelling, and deferral of the assessment of key environmental impact issues to later (post-determination) stages in the planning process (JP4);
10. to express its view that the substantial funding for WestConnex Stage 3 be directed to public transport, active transport and demand management solutions necessary to secure Sydney's economic future (JP6);

11. to recognise the negative economic impacts of WestConnex Stage 3, including the substantial cost of the project (with few benefits) and the equity impact of tolls on Western Sydney residents (JP7);
12. pointing out that WestConnex conflicts with the aims of a number of NSW Government plans and policies, including the 2014 *Metropolitan Strategy* and the 2016 *draft Central Subregional District Plan* (JP8);
13. pointing out that WestConnex as currently designed is not consistent with some of the project's original aims, including provision of a road link to Sydney Airport and Port Botany (JP9);
14. forwarding the 2016 SGS Economics & Planning review of the WestConnex business case, seeking a response to the review's findings (JP10);
15. seeking a response to the findings of reviews of WestConnex funding and approvals processes by the NSW and Australian Auditor Generals released in 2016 and 2017 respectively (JP11);
16. to express concerns about the flawed economic case for WestConnex through over-estimation of benefits and underestimation of costs. Council is particularly concerned that the substantial health costs imposed on the Inner West community by the project have not been accounted for (JP 12);
17. expressing concerns about air quality impacts from WestConnex, pointing out that high-occupancy public transport (Council's preferred transport option) would result in lower local emissions and lower overall emissions on a passenger-kilometre basis (AQ1);
18. seeking a commitment to reducing all forms of emissions across the metropolitan region to ensure cumulative impacts from road-related sources are minimised (AQ2);
19. seeking filtration for all existing and proposed WestConnex ventilation facilities. This is regardless of financial cost and whether compliance with air quality standards can be achieved without filtration (AQ5);
20. expressing concerns about air quality impacts from roadside emissions from additional traffic generated by WestConnex (AQ7);
21. expressing the view that State and national air quality standards may need to be reviewed to bring about an *improvement* in air quality in Sydney (AQ12);
22. to request that two-stage construction of Stage 3 does not increase or extend construction or operational impacts on residents (CW1);
23. expressing concern about the impact on Inner West residents from the number, staging and variety of Stage 3 construction activities across a large part of the Inner West Council area (CW2);
24. seeking a significant improvement in management of construction impacts from Stage 3 based on lessons learned from Stages 1 and 2 (CW3);
25. to express its concerns about continuation of construction impacts on Haberfield/Ashfield and St Peters residents (CW5);
26. to request that that Stage 3 night-works are minimised and conditions of approval and environmental protection licenses are reviewed and made more stringent for all stages of WestConnex (CW7);
27. to express its concerns about lack of willingness of SMC and its contractors to adopt best-practice in managing construction impacts (CW18);
28. to express concerns about use of 7 Darley Road Leichhardt as a Stage 3 construction site as it raises many issues, including traffic safety, noise and dust impacts (CW33);

29. expressing concern about lack of detail in the EIS on construction activities, methods and consultation processes (CW54);
30. to express its concerns about negative impacts on the Inner West from induced traffic from WestConnex (TT1);
31. to express concerns about the overstatement of travel time benefits and understatement of health costs from WestConnex (TT2);
32. to express its concerns about additional traffic from WestConnex on local streets and main roads. Council seeks a commitment that RMS will not widen or remove clearways on any street or road around WestConnex to accommodating additional traffic (TT5);
33. seeking a continued commitment from RMS and other agencies to Council's efforts to identify and protect local streets that may be affected by WestConnex traffic. As increased traffic flows are related directly to WestConnex, RMS should fund implementation of traffic calming works to protect these streets (TT8);
34. seeking a commitment from RMS and relevant agencies to Council's efforts to identify and capture spare traffic capacity from all streets and roads that may have *reduced* traffic from WestConnex, and to seek funding for implementation of public transport, active transport and streetscape improvements on these streets and roads (TT10);
35. expressing concerns that construction and operational traffic from WestConnex will create safety issues for pedestrians and cyclists in the short and long-term and make it more difficult for Council to create functional active transport networks (TT15);
36. raising concerns about use of the Rozelle Rail Yards site for WestConnex could sever rights-of-way for future public transport projects, including future light rail links (TT22);
37. to express concerns that conditions of approval and adoption of best practice cannot fully mitigate against construction impacts on residents (NV1);
38. to express its concerns about the multiple and far-reaching health effects of urban motorways (HR1);
39. to express concerns about the serious health impacts that WestConnex Stages 1 and 2 has already imposed on residents of Haberfield/Ashfield and St Peters (HR2);
40. expressing its concerns about the noise and air quality impacts from WestConnex and its impact on human health, particularly for vulnerable populations (HR4);
41. to express its concerns about the serious psychological impacts that compulsory property acquisitions continues to have on individuals, families, households and businesses (HR5);
42. expressing concerns about property acquisition processes applied to Stages 1 and 2, seeking significant improved in these processes for Stage 3 (LP1);
43. expressing concerns about the high financial cost of compulsory acquisitions, and their impact in reducing the supply of housing and employment lands in inner-Sydney (LP2);
44. to request that social issues encountered by residents affected by Stages 1 and 2 to improve social impact assessment for Stage 3 (SE1);
45. requesting WestConnex be assessed against national and international best-practice transport plans and projects (SE7);
46. seeking a commitment that no new or extended clearways or road widenings will be implemented on main roads or local streets as a result of WestConnex (SE10); and
47. expressing the view that by promoting car use and urban sprawl, WestConnex is counter to accepted best-practice in the creation of liveable, sustainable cities (CC2).

That Council requests the DP&E to require, prior to any determination:

1. establishment of a process that allows Council and the community to participate in the drafting and implementation of all management plans and urban design plans required by any conditions of approval (AP4);
2. an assessment of Beca's comments and recommendations in relation to Part 2 of Council's submission, *Justification for project* (JP 13);
3. a further assessment of the project's contribution to cumulative air quality impacts. This includes consideration of emissions from the White Bay cruise ship terminal and emissions from Sydney Airport flight paths (AQ3);
4. a further assessment of air quality impacts from ventilation facilities on nearby schools and to assess ventilation facility height, local topographical effects and weather effects on emissions (AQ4);
5. a full assessment of the costs and benefits of ventilation facility filtration (AQ6);
6. an assessment of the worst-case contribution of WestConnex Stage 3 to increased roadside emissions around Victoria Road, Rozelle, the Anzac Bridge and Canal Road / Gardeners Road Mascot. DP&E to consider these emissions in any future rezoning that increases the density of development in these areas, including the Bays Precinct (AQ8);
7. a further assessment in-tunnel emissions, in-tunnel filtration options and emissions issues in failure or emergency situations (AQ9);
8. an assessment of the air quality implications of emergency situations and the steep grades proposed for the Rozelle Interchange (AQ11);
9. an assessment of WestConnex air quality impacts on vulnerable groups such as asthmatics, young children and older people (AQ13);
10. a further assessment the impact of all vehicle emissions, not only tailpipe emissions (AQ17);
11. an assessment of how flaws in the traffic modelling explained in Council submission could influence air quality modelling results. Assessment to consider emissions from WestConnex-generated traffic on local and regional roads, not just State roads (AQ18);
12. clarification of the expected maximum NO₂ concentrations at key monitoring points (AQ19);
13. an assessment of the local effects of buildings, structures and topography on emissions from ventilation facilities, with the results of this assessment to guide mitigation measures (AQ20);
14. an assessment of Beca's comments and recommendations in relation to Part 3 of Council's submission, *Air quality* (AQ22);
15. a study of inadequacies in the management of construction impacts from Stages 1 and 2 to inform significantly improved management processes for Stage 3 (CW4);
16. a reassessment of current baseline environmental conditions for the construction sites at Haberfield/Ashfield and St Peters, and the interaction between Stages 1 and 2 and Stage 3 at these sites (CW6);
17. a review of conditions of approval and environmental protection licenses for all stages of WestConnex to ensure they are of the highest standard (CW8);
18. an independent health study of Haberfield/Ashfield and St Peters residents affected by Stage 1 and 2 construction sites. Study to be overseen by NSW Health and used to inform any Stage 3 conditions of approval (CW10);

19. a review that strengthens and simplifies monitoring and complaints procedures between DP&E, EPA and the proponent (CW15);
20. adequate DP&E and EPA compliance resources with the capacity and authority to intervene, supervise & prosecute (CW16);
21. an assessment of Stage 1 and 2 cumulative noise impacts from overlapping noise envelopes - to guide relevant construction management plans for Stage 3 (CW17);
22. an assessment of background environmental factors that contribute to cumulative impacts (CW19);
23. development of parking management plans for all Stage 3 construction sites (with a focus on Darley Road) in consultation with Council and affected communities. Parking management plans to be strictly enforced and include incentives and penalties (CW20);
24. an assessment of the construction site options for the Haberfield/Ashfield sites that aims minimising impacts on surrounding residents, particularly those who have been worst affected by Stage 1 construction. Assessment to investigate options to maximise below-surface construction work to reduce noise impacts (CW21);
25. an assessment of changes to Haberfield/Ashfield construction site noise envelopes attributable to changed conditions from Stage 1 construction and the cumulative noise impact of overlapping Stage 1 and Stage 3 construction (CW24);
26. an assessment of the long-term vibration impacts on buildings, with a focus on Haberfield/Ashfield construction sites (CW25);
27. development of measures to improve monitoring of construction truck traffic to minimise noise and safety impacts, including identification of project trucks and appointment of a dedicated traffic monitoring officer (CW28);
28. a detailed assessment of truck marshalling arrangements for Stage 3 that includes marshalling locations, hours of operation and routes to/from construction sites (CW29);
29. to consider use of Sydney Metro (rail) conditions of approval related to the establishment of a traffic and transport liaison group for Stage 3 (CW31);
30. a detailed traffic safety audit for the Darley Road construction site for all road users. Study to include examination of traffic volumes and crashes, and include an audit of traffic safety risks (CW34);
31. a further assessment of the Rozelle Rail Yards site (western end) and any other potential sites, as an alternative to the 7 Darley Road site - on the basis of potentially lower impacts overall (CW35);
32. a further assessment of the potential to reduce number of construction truck movements by drying and/or crushing of spoil on-site to reduce its weight and volume, and by re-using spoil in tunnel shotcrete for the project (CW36);
33. an assessment of the potential to transport spoil from the Darley Road construction site by sealed conveyor belt to the Glebe Island concrete batching works for re-use, with non-useable spoil further transported by barge (CW37);
34. an assessment of the potential to create an exit ramp and loading area for spoil trucks from the left-lane of City West Link Road westbound into an area between City West Link and the light rail line. Spoil would be conveyed from the acoustic shed to trucks using a shielded conveyor belt over the light rail line to overhead hoppers (CW38);
35. a road safety audit for Pymont Bridge Road site to minimise conflicts between construction trucks, buses, pedestrians and cyclists at the entry and exit points of the site (CW42);

36. an assessment of 'go-around' procedures for construction trucks accessing the Pymont Bridge Road site (CW43);
37. an assessment of the impact of construction trucks turning to/from City West Link Road to The Crescent in the event that route is used (CW44);
38. an assessment of concerns raised about the St Peters Interchange site in the submission by former Marrickville Council on the Stage 2 EIS (CW48);
39. an assessment of the cumulative impacts of construction across the four Rozelle/Lilyfield/Annandale construction sites (CW49);
40. an assessment of the traffic impacts on City West Link Road of construction trucks accessing the Rozelle construction site (CW50);
41. an assessment of Beca's comments and recommendations in relation to Part 4 of Council's submission, *Construction work* (CW55);
42. an explanation of the method of calculating travel-time savings in the EIS and the true value of such savings against other costs including community health, well-being and safety (TT3);
43. an assessment of public transport and demand-management initiatives that could be implemented to achieve that same congestion reductions/travel time savings as WestConnex (TT4);
44. a further assessment of the ability of WestConnex to remove heavy vehicles from surface roads. Assessment to include heavy vehicle desire lines to/from Port Botany and Sydney Airport and the sensitivity of heavy vehicles to tolls (TT12).
45. an assessment of Beca's comments and recommendations in relation to Part 5 of Council's submission, *Operational traffic & transport* (TT14);
46. an assessment within the active transport strategy of all options to connect all walk/cycle paths through the proposed Rozelle Rail Yards recreation area to the *Cooks River to The Bays Greenway*. This would include an assessment of the City West Cycle Link between the GreenWay / Bay Run and the RRY recreation area and how standard designs developed for the GreenWay can be incorporated (TT18);
47. an assessment of how rights-of-way are to be maintained for future public transport projects such as the Sydney Metro West (heavy rail) and light rail links to White Bay Power Station, Glebe Island and the White Bay cruise ship terminal (TT23);
48. a plan within the active transport strategy for separated bicycle lanes along Victoria Road, Rozelle and other public domain improvements facilitated by the Iron Cove Link. Plan to clarify whether the walk/cycle bridge over Victoria Road will remain (TT24);
49. a further assessment of the cumulative impacts of vibration on noise and other impacts from Stage 3 construction sites. The assessment to include an evaluation of cumulative construction impacts experienced by affected residents to date from Stages 1 and 2 (NV3);
50. a further assessment of vibration impacts on people and buildings in locations where WestConnex tunnels are shallow (NV4);
51. an assessment of Beca's comments and recommendations in relation to Part 6 of Council's submission, *Noise & vibration* (NV5);
52. an assessment of Beca's comments and recommendations in relation to Part 7 of Council's submission – *Human health risks* (HR6);
53. a program of improved procedures for voluntary and compulsory property acquisitions (LP3);

54. an assessment of Beca's comments and recommendations in relation to Part 9 of Council's submission – *Land-use & property* (LP8);
55. an assessment of Beca's comments and recommendations in relation to Part 10 of Council's submission – *Social & economic impacts* (SE13);
56. an assessment of Beca's comments and recommendations in relation to Part 11 of Council's submission – *Urban design & visual amenity* (UD7);
57. an assessment of Beca's comments and recommendations in relation to Part 12 of Council's submission – *Soil quality, water quality & contamination* (SC4);
58. a detailed flooding and drainage assessment based on final project designs (FG1);
59. an assessment of the potential for cracking of buildings from settlement caused by tunnel-induced groundwater withdrawal (FG3);
60. an assessment of Beca's comments and recommendations in relation to Part 13 of Council's submission – *Flooding, drainage & groundwater* (FG5);
61. an assessment of Beca's comments and recommendations in relation to Part 14 of Council's submission – *Biodiversity & heritage* (BH9);
62. a re-assessment of the EIS consequence criteria rating to account for the high number of complaints and protests associated with this project (ER2);
63. an assessment of Beca's comments and recommendations in relation to Part 15 of Council's submission – *Environmental, hazard & risk factors* (ER4);
64. an assessment of the project's impact on climate change, including the 'heat island' effect from roads and associated facilities (CC1); and
65. an assessment of Beca's comments and recommendations in relation to Part 16 of Council's submission – *Sustainability & climate change* (CC3).

That Council requests the DP&E to include in any conditions of approval:

1. a requirement for monitoring and limiting in-tunnel emissions according to the most stringent limits used internationally (AQ10);
2. a requirement for continual air quality monitoring of sensitive land uses such as schools. Monitoring would be guided by an air quality committee that includes representation from Council and the community, with results publicly available online in real-time (AQ14);
3. calibration and validation of Stage 3 air quality modelling results to assess actual impacts. Mitigation measures to be implemented should validation show that impacts are higher than predicted (AQ15);
4. a requirement for management plans that include all of the items recommended by the UK Institute of Air Quality Management (IAQM) for medium and high risk sites with appropriate mitigation measures. This includes consideration of all construction-related emissions (not just crystalline silica), emissions from on-site concrete batching plants, emissions from idling of construction trucks, emissions from blasting and implementation of best-practice monitoring (AQ20);
5. alert and alarm values for dust concentrations and wind speed/direction which can be used for modification of site operations, dust control methods and for stopping work if necessary (AQ21);
6. stringent requirements to minimise night-works (CW9);
7. a requirement to appoint a dedicated health case worker to monitor and assist with amelioration of construction health impacts for all stages of WestConnex (CW11);

8. a requirement for no construction work (including spoil removal) to be permitted out-of-hours, with a night-time curfew imposed on all work from 11pm until 6am. Further, that the more up-to-date conditions and licensing terms applied to the Sydney Metro (rail) project should be applied to Stage 3, should it proceed, and retrospectively applied to Stages 1 and 2 (CW12);
9. a requirement that RMS road occupations be allowed from 7pm onward to assist with implementation of the night-work curfew (CW13);
10. a requirement to appoint a utilities manager with enforcement powers to co-ordinate project and utilities works so that cumulative construction impacts on residents around worksites are minimised (CW14);
11. a night-time curfew on all works (including tunnelling) at all Haberfield/Ashfield construction sites in recognition of impacts endured to date and overlapping (cumulative) impacts from Stages 1 and 3 (CW22);
12. a requirement that construction trucks servicing any of the Stage 3 construction sites are not to use Liverpool Road (Hume Highway) because of impacts on Ashfield town centre, other shopping centres and other sensitive uses (CW23);
13. provisions for improved management of road closures and diversions and longer lead-times for notification. Posted speed limits around all construction sites to be reduced (CW26);
14. measures to improve co-ordination of dissemination of community information, adequate lead times for notices and immediate availability of all notices on the proponent's website (CW27);
15. requirement that construction truck movements avoid peak traffic periods and peak school travel periods. This is to reduce traffic congestion and avoid road safety risks (CW30);
16. an assessment of cumulative impacts from construction activities within the Bays Precinct, Balmain Power Station site, along James Craig Drive and possibly construction of the Western Harbour Tunnel (CW32);
17. a requirement that the acoustic shed on the Darley Road construction site be designed to minimise noise impacts on nearby residents (CW39);
18. a requirement to minimise the extent and environmental impact of all permanent motorway support infrastructure (CW40);
19. a requirement that the Pymont Bridge Road tunnel site be developed for 'biomedical hub' uses consistent with the draft *Parramatta Road Urban Transformation Strategy* (CW41);
20. measures to minimise noise and dust impacts on dwellings at 67-77 Pymont Bridge Road, Annandale, the Bridge Road school at 127 Parramatta Road, Camperdown and other sensitive commercial and healthcare uses in the vicinity (CW45);
21. a requirement to redesign the Pymont Bridge Road construction site to retain Bignell Lane (CW46);
22. noise and dust mitigation measures to protect dwellings near the Stage 3 Campbell Road construction site, including dwellings on the northern side of Campbell Street and the southern section of Barwon Park Road and Crown Street, St Peters (CW47);
23. measures to mitigate noise and dust impacts on the adjacent marina and Federal Park, minimise occupation of Buruwan Park and ensure no sediment or other pollutants enter Rozelle Bay (CW51);

24. requirements to ensure the Victoria Road construction site does not sever walk/cycle connectivity past this site – at both the construction and operational stages (CW52);
25. measures for the Iron Cove construction site to protect residents on both sides of Victoria Road from dust and noise impacts, suitable access arrangements between Victoria Road and King George Park and minimisation of pedestrian and cyclist path diversions around the site (CW53);
26. a requirement that RMS will not widen or remove clearways on any road around WestConnex to accommodate additional traffic generated by the project (TT6);
27. a requirement that RMS support the establishment of a separated cycleway for the length of Johnston Street, between The Crescent and Parramatta Road and that this cycleway be supported by suitable traffic calming measures to minimise pedestrian/vehicular and cyclist/vehicular conflict (TT7);
28. a requirement that commits RMS and other agencies to continue to work with Council to identify, through independent modelling, local streets that may be affected by *additional* traffic from WestConnex. An initial identification of these streets is attached to Council's submission. RMS to continue to work with Council and the community to develop traffic-calming schemes to protect these streets from the additional traffic. Works to be funded by the NSW Government and implemented prior to any stage of WestConnex becoming operational (TT9);
29. a requirement that commits RMS to working with Council to identify roads that may be affected by reduced traffic from WestConnex and to work with Council and the community to capture road capacity to increase capacity for public transport, active transport and amenity improvements. An initial identification of these roads is attached to Council's submission. Masterplanning of these roads to be undertaken by a working group that includes Council, relevant State agencies and community representatives, with works funded by the NSW Government. Priority roads in this category are Parramatta Road and Victoria Road at Rozelle (TT11);
30. a requirement for monitoring of selected streets to validate traffic modelling one, two and five years after opening of the project. This is to ensure local streets continue to be protected against additional traffic from WestConnex and that traffic capacity is reclaimed from streets where traffic has been reduced by WestConnex (TT13);
31. a requirement to involve Council, pedestrian and cycling groups and the general community in the further development of the Stage 3 active transport strategy (TT16);
32. a requirement that enhanced active transport connectivity be provided to Rozelle Rail Yards recreation area through the construction of genuine land bridges rather than simple narrow bridging structures (TT17);
33. a requirement that Glebe Island Bridge be reinstated as an active transport link between Glebe Island and Pyrmont (TT19);
34. a requirement that the existing connection (shared path bridge) across Victoria Road (at Lilyfield Road) be improved or at least retained as part of the active transport network (TT20);
35. a requirement for a plan within the active transport strategy showing maintenance of walk/cycle access to The Crescent from Railway Parade, Annandale during construction. Post-construction, the plan is to show a path on the southwest edge of the proposed slip lane connecting Railway Parade to The Crescent footpath and a bicycle lane under the nearby railway viaduct (TT21);
36. a requirement for constant noise and vibration monitoring, with result publicly available online in real time. Noise exceedance levels to account for the nature of noise impacts (NV2);

37. the appointment of an independent human health practitioner to monitor on-going health issues associated with WestConnex. The practitioner should be readily approachable by the community, guided by an advisory group which includes (but is not be limited) to NSW Health, DP&E, EPA and relevant Councils. Periodic health reviews should be undertaken and results made publicly available (HR3);
38. a requirement that the Rozelle Rail Yards recreation area and other Stage 3 residual lands should be fully-delivered to Council at the earliest opportunity with funding for maintenance. Council and the community to be closely involved in development of final designs and plans of management (LP4);
39. a requirement that all residual lands be devoted to open space and community use, with the exception of the Pymont Bridge Road site, which should be returned to a 'biomedical hub' use in keeping with the Parramatta Road Urban Transformation Strategy (LP5);
40. a requirement that all residual lands should be designed to be as useful to the community as possible, with RMS to retain ownership of areas that are not useful (LP6);
41. a requirement that pre-construction property condition surveys be carried out by an independent body (LP7);
42. appointment of a social worker to assist vulnerable members of the community affected by construction impacts (SE2);
43. a requirement for place-making and community programs to mitigate impacts from the project on community connectivity (SE3);
44. a requirement for a parkland compensation plan to compensate Council for loss of parkland and to improve other areas of open space (SE4);
45. a requirement to mitigate against graffiti and protect public art, including a mural in Buruwan Park and the *Guerrilla Gardeners Troll* under the Johnston Street Bridge (SE5);
46. a requirement to consider the *Leichhardt Healthy Ageing Plan* and *Inner West Council Inclusion Action Plan* in the development of relevant management plans (SE6);
47. a requirement to consider international best-practice transport plans and projects, to be used to guide management plans for Stage 3 (SE8);
48. a requirement to appoint of a full-time business manager to implement a business plan for Stage 3 and to assist affected businesses on an as-needs basis (SE9);
49. a requirement to investigation of the potential business opportunities for the Rozelle Rail Yards recreation area, provided this does not negatively affect the integrity of this space (SE12);
50. a requirement for involvement of Council and the community in the design of the Rozelle Rail Yards recreation area, Iron Cove Link site and other residual lands (UD1);
51. a requirement to maximise walk/cycle connectivity to and provide rights-of-way for future public transport in the design of the Rozelle Rail Yards recreation area (UD2);
52. a requirement to minimise the number and extent of motorway support facilities in the Rozelle Rail Yards recreation area (UD3);
53. a requirement for development of a parking and traffic management plan to guide the design of the Rozelle Rail Yards recreation area (UD4);
54. measures to minimise visual impacts of all Stage 3 ventilation facilities, with a focus on the facilities in the Rozelle Rail Yards site and on Victoria Road near Terry Street (UD5);

55. measures to minimise visual impacts of roadside directional signs and variable message signs associated with the project (UD6);
56. a requirement for a contamination management plan that requires dust monitoring (in recognition asbestos risks) for works on the Rozelle Rail Yards site and notification of Council about discovery of contaminants (SC1);
57. a requirement for a contamination management plan that details mobilisation of contaminants and erosion potential on construction sites (SC2);
58. a requirement for relevant management plans to incorporate water quality policies and standards recommended by Council in its submission (SC3);
59. a requirement for stormwater and run-off management plans that include wetland habitat protection strategies and detail the impact of the project on Sydney Water's Iron Cove Creek renewal proposal (FG2);
60. a requirement for a flora and fauna management plan for the RRY site that includes further flora/fauna survey information and requires habitat replacement, vegetation offsets and staging of clearing works to minimise biodiversity impacts (BH1);
61. a requirement for retention of some rail heritage in-situ, in addition to adaptive re-use. Consideration to be given to retention of the Port Authority building on the site (BH2);
62. a requirement for a heritage salvage strategy applying to all properties with salvageable historical elements - not just those properties that are heritage-listed or located within heritage conservation areas. In some cases this could include the salvage of whole buildings for reconstruction on another site by the receiver of the materials (BH3);
63. a requirement that archival reports be completed for all listed properties and properties nominated as having potential heritage significance in the EIS – as well as 244 and 256 Victoria Road, Rozelle (BH4);
64. a requirement for an interpretation strategy provide for reuse of salvaged fabric and informative interpretive signage information within each of the specific study areas where demolitions are to occur, not just within one central location (BH5);
65. a requirement that the amenity of all heritage-significant properties left standing adjacent to construction sites (regardless of their listing) be appropriately protected. Their significant features are to remain intact and their setting improved by the proposed landscaping works so that their heritage significance and value is not further diminished (BH6);
66. a requirement that the former Bank of NSW building at No.164 Parramatta Road at Annandale be retained and conserved by realigning the boundaries of the Pymont Bridge Road construction site (BH7);
67. a requirement for adoption of NSW 'unexpected find' protocols for items of aboriginal heritage (BH8); and
68. a requirement to develop a management plan for hazardous and emergency situations, such as crashes, ventilation failures and tunnel fires (ER1).

REFERENCES

Key references are as follows:

Beca Australia (2017) *WestConnex Stage 3 (M4-M5 Link) EIS Review – facilitated by Beca for Inner West Council - currently being drafted, to be attached to Council's submission on the EIS*

City of Sydney (2016) *The WestConnex Challenge, Public Summary Report and WestConnex - Alternative Proposal*

Department of Planning & Environment (DP&E) (2016) *WestConnex Stage 3 (M4-M5 Link) State Significant Infrastructure Application Report (SSIAR)*

DP&E (2016) *Secretary's Environmental Assessment Requirements (SEARs) for Preparation of an Environmental Impact Statement (EIS) for WestConnex Stage 3 (M4-M5 Link)*

Former Ashfield Council (2015) *Submission on WestConnex Stage 1 (M4 East)*

Former Leichhardt Council (2016) *Submission on WestConnex Stage 2 (New M5)*

Former Leichhardt Council (date unknown) *GreenWay Revegetation & Bushcare Plan*

Former Leichhardt Council (date unknown) *Leichhardt Native Revegetation & Biodiversity Management Plan*

Former Marrickville Council (2016) *Submission on WestConnex Stage 2 (New M5)*

Harding et al (2013) *The cost of hypertension-related ill-health attributable to environmental noise*, Noise Health Journal

Inner West Council (2017) *Submission on the WestConnex Stage 3 (M4–M5 Link) Concept Design*;

Munzel et al (2014) *Cardiovascular effects of environmental noise exposure*, European Heart Journal

Prasher D (2007) *Noise and its effects*, Wiley London

RMS (2014) *Advisory Committee on Tunnel Air Quality - TP09: Evolution of road tunnels in Sydney*

Roads & Maritime Services (RMS) (2017) *WestConnex Stage 3 (M4–M5 Link) Environmental Impact Statement (EIS)*

Saunders (2008) *Avian Biodiversity Monitoring & Bird Habitat Management within the Leichhardt LGA*

SGS Economics & Planning (2016) *WestConnex Business Case Review*, for former Leichhardt Council & City of Sydney

Sydney Motorway Corporation (SMC) (2017) *WestConnex Stage 3 (M4–M5 Link) Concept Design*

Tiesler et al (2013) *Exposure to road traffic noise and children's behavioural problems and sleep disturbance*, Environmental Research Journal

Tzivian et al (2014) *Effect of long-term outdoor air pollution and noise on cognitive and psychological functions in adults*, International Journal of Hygiene and Environmental Health

Woolcock Institute of Medical Research Centre for Air Quality and Health Research & Evaluation (2015) *Review of the health impacts of emission sources, types and levels of particulate matter air pollution in ambient air in NSW* for NSW EPA