

**SUBMISSION FROM MARRICKVILLE COUNCIL
TO THE DEPARTMENT OF PLANNING & ENVIRONMENT ON
WESTCONNEX STAGE 2 – NEW M5 (BEVERLEY HILLS TO ST PETERS)**

FEBRUARY 2016

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ATTACHMENTS

Attachment 1: Issues, actions and responses recorded by Sydney Motorway Corporation (SMC) at workshops with staff from relevant councils in December 2015

Attachment 2: Report by TTM Traffic Consultants for Marrickville Council - *WestConnex Stage 2 EIS Review of Traffic, Transport, and Modelling, January 2016*, January 2016

Attachment 3: Report by Air, Noise Environment Pty Ltd for Marrickville Council - *Independent Peer Review - Appendix H, Air Quality Assessment, WestConnex New M5 Environmental Impact Statement, January 2016*

Attachment 4: Report by Eco Logical Australia Pty Ltd for the City of Sydney and Marrickville Council - *New M5 and St Peters Interchange Environmental Impact Statement – Review of Biodiversity Assessment, December 2015*

1. INTRODUCTION

This submission responds to the public exhibition by the Department of Planning and Environment (DP&E) of the WestConnex Stage 2 (New M5) Environmental Impact Statement (EIS) from November 2015 to January 2016. The submission has been compiled from input from relevant Council staff, with external consultants' advice obtained for the issues of traffic/transport, air quality and biodiversity. The structure of the submission is based on the EIS chapters identified as the beginning of each section. Although Council does not support WestConnex progressing, the submission suggests measures to mitigate some of the impacts of from the project and urges the DP&E to have regard to these should the project be approved.

As several of the issues are inter-related, there are instances where the same issue is raised in different sections of the submission. Where a chapter is not addressed in the submission, Council has not made any comment on that issue. Many of the issues in this submission were also raised in Council's submission on the WestConnex Stage 1 (M4 East) EIS in November 2015, particularly those of a strategic nature. Some of the issues raised in this submission relate to land within the City of Sydney as many of the key impacts occur around the border of the City and Marrickville LGAs at St Peters.

Relevant reports and other background information are attached to this submission, as listed above. Council requests that all information within these attachments be taken into account when the submissions are being assessed. Council considers the list of issues raised in the December 2015 Council staff workshops convened by Sydney Motorway Corporation (SMC) at **Attachment 1** to be an important consideration and form part of this submission.

With the limited time to prepare this submission and with Council in recess for most of the exhibition period, it has not been possible to report this submission to Council prior to its lodgement. The submission will be reported to Council's 16 February 2016 meeting with a recommendation that Council forward any additional comments raised at the meeting to the DP&E as an addendum to this submission. The officers' report, with this submission attached, will be publicly available on Council's website prior to the meeting, and Council's resolution will be publicly available after the meeting.

2. SUMMARY

Marrickville Council has for many years opposed inner-city motorways and has recently confirmed its "*absolute opposition to the WestConnex project*". Council views WestConnex as an outdated solution to Sydney's transport needs that will entrench car dependency, divert funds from essential public transport and undermine liveability. Council also has concerns about the WestConnex planning process, including a poor business case, announcement of contractors prior to release of EISs and exhibition of the New M5 EIS over the end-of-year holiday period.

Following is a summary of *strategic* issues raised in this submission:

- the decision that a motorway is the preferred option appears to have been made prior to development of the EIS without a full and transparent business case that includes serious consideration of mixed-mode alternatives, which Council believes would be more effective means of meeting the objectives of *A Plan for Growing Sydney* - particularly given the cost of the project and its importance to the future of Sydney;

- the project adopts a business-as-usual approach without mode-shift targets, and alternatives are assessed in isolation (not as integrated solutions) against motorway project objectives, not against broader planning objectives;
- the significant expenditure on this project will result in many negative impacts at the local level and few benefits to wider community, including toll-paying motorists;
- the project is not likely to meet many of its own objectives and the objectives of *A Plan for Growing Sydney* - such as improved access from western Sydney to jobs in the CBD and major centres and improved freight transport from Port Botany and Sydney Airport to western Sydney;
- induced traffic is incompletely and inflexibly assessed in the EIS, with impacts on public transport patronage and active transport volumes not fully examined;
- the economic impact assessment in the EIS does not provide justification for the proposal as it lacks a comprehensive assessment of the impacts based on detailed modelling, cost/benefit analysis, inclusion of opportunity costs and a robust business case;
- importantly, the economic impact assessment does not consider the negative 'city-shaping' (urban form and liveability) impacts of the project; and
- the EIS fails to address the strategic requirements of several of the Secretary's Environmental Assessment Requirements (SEARs).

Following is a summary of the **traffic and transport** issues raised in this submission:

- there is at this stage no firm commitment to completion of all stages by 2031 – without Stage 3, there will be no relief from the on-going traffic impact on inner-Sydney;
- there is a need for an over-arching EIS for the entire project to consider all inter-related issues and impacts, i.e. Stages 1, 2, 3, the Southern Gateway, the Sydney Gateway and possibly also the Northern and Southern extensions;
- the New M5 EIS transport model does not include public transport assignment or public transport demand forecasting – therefore, the competing effects of traffic congestion and rail crowding have not been tested;
- the absence of long-term traffic modelling means that long-term traffic growth and associated socioeconomic or sustainability impacts are not being identified, mitigated or monitored;
- concern about the project's contribution to traffic growth and increased parking demand across the LGA - leading to pressures for new or expanded clearways, with consequent amenity and business impacts, particularly along King Street, Newtown;
- traffic growth and increased parking demand also conflicts with Council's efforts to constrain road capacity through traffic calming and the introduction of trees/gardens into road reserves;
- the EIS should identify the likely impacts of additional traffic on residential streets in the LGA and mitigate those impacts by implementing a local area traffic management (LATM) study, which should also include post-implementation reviews to address any unforeseen impacts;
- the abovementioned study should be guided by a set of principles that guide the implementation a range of measures including traffic calming, speed reductions and the redesign of intersections to give priority to pedestrians and cyclists;
- the tolling regime is not tested and there is no explanation of how toll levels (and people's perception of tolls) change into the future - given the impacts this can have on surface roads and recent toll-road failures, this is a significant omission; and
- significant negative traffic and road widening impacts on Sydney Park are not adequately assessed.

Following is a summary of **visual impact and urban design** issues raised in the submission:

- the expansive design of the St Peters interchange is not productive use of the land, resulting in inaccessible 'lost space' connected by over-designed walk/cycle paths that lack surveillance and are not fully connected to the surrounding street network;
- no pedestrian/cycling study has been undertaken for the EIS, and it is expected that the EIS would go further than it has to identify opportunities for walk/cycle network improvements and how these can be integrated with the surrounding network; and
- the footprint of the interchange and motorway management facilities could be significantly reduced to allow more of the site to be used productively and to ensure new development is visually integrated with the surrounding urban fabric.

Following is a summary of **consultation, social, economic and heritage** issues raised in the submission:

- concerns about exhibition of the EIS over the end-of-year holiday period;
- concern that the significant social and amenity impact of property acquisition, particularly those involving the demolition of dwellings along Campbell Street, St Peters;
- the social impact assessment should include a comprehensive assessment of the social impacts in consultation with affected people and communities, to identify positive impacts (if any) and improved mitigation measures for negative impacts;
- no scoping of (or consultation with) population groups who will potentially be affected has been undertaken – apart from the people whose land will be acquired and users of social infrastructure; and
- concerns about the direct and indirect impact of the project on heritage items and conservation areas.

Following is a summary of **air quality** issues raised in the submission:

- although Council's independent assessment of air quality section of the EIS concludes the assessment is "*reasonable*" and the project is "*not likely to significantly worsen local and regional air quality*", it raises a number of technical issues with the EIS's emissions data; and
- Council also notes that air quality in inner-Sydney is currently generally poor and changes to Federal air quality standards may affect the projects ability to comply – in any event, Council prefers transport alternatives that *improve* air quality.

Following is a summary of **contamination, flooding and water management** issues raised in the submission:

- the contamination assessment could only be considered a Preliminary Site Investigation as per the *Guidelines for Consultants Reporting on Contaminated Sites* (NSW EPA 2011). The scale of the proposal, lack of information about past activities, and known presence of contamination and contaminating processes over the entire project site warrant a *Detailed Site Investigation* prior to approval, not deferred to a later stage; and
- the assessment of groundwater and water quality impacts is not adequate and there are further opportunities to reduce potable water consumption used in the construction and operation of the project; and
- it is noted from the EIS that the project will increased flooding impacts in a number of locations, but these impacts are not expected to be significant – notwithstanding, Council remains concerned about local flooding in the area around the Campbell/May Street intersection, St Peters; and

- Council has initial concerns about the water detention basin/wetland capacity required for the project in Camdensville Park and is keen to ensure this facility is effective in addressing the abovementioned local flooding issues and in enhancing the recreational and biodiversity value of the park.

Following is a summary of ***biodiversity, environmental and construction impact*** issues raised in the submission:

- there are inadequacies in the EIS's methodology and assessment of biodiversity impacts, existing biodiversity is under-valued and there is little discussion of how biodiversity can be improved;
- the EIS should compare private vehicle and public transport greenhouse emissions and explain how the *NSW Long Term Transport Master Plan* objective to grow the proportion of travel by sustainable modes (predominantly walking, cycling and public transport) is being addressed;
- the EIS does not adequately address the impact of the project on climate change, and should consider Australia's commitment to emissions reduction and Ecologically Sustainable Development as outlined in the *Protection of the Environment Administration Act 1991* (NSW) and the *Environment Protection and Biodiversity Conservation Act 1999*.
- the EIS's target of 6% of energy from renewable sources should be increased; and
- Council has provided a number of additional provisions to be included in the management plans for the project's various construction activities.

Council's submission concludes that the project should not proceed and recommends that multi-modal alternatives to WestConnex Stage 2 be evaluated, including:

- expansion of the new Metro rail network;
- new road connection from Port Botany to M5 to enable better dispersal of freight from port and road upgrades for freight heading north;
- increased services along the Western Rail Line;
- freight rail upgrades;
- improved connections to stations along Airport/Revesby line including park and ride options at major stations and an increase in frequency of services along this line;
- new stations on the Airport Line in the Green Square area; and
- expansion of the existing light rail network.

3. STRATEGIC ISSUES

This section relates to EIS Chapters 1 to 4 and 31 - *Project benefits, Strategic context, Project need, Project development/alternatives, Project justification & EIS conclusion*.

Marrickville Council has a long history of opposing inner-Sydney motorways, and at a meeting in September 2015 confirmed its "*absolute opposition to the WestConnex project*". Accordingly, Council opposes WestConnex Stage 2 – New M5 (Beverley Hills to St Peters).

Council views WestConnex as an out-dated solution to Sydney's transport needs which will entrench car dependency, divert funding from essential public transport and undermine liveability in inner-Sydney. Council is aware that cities around the world compete economically on liveability and the quality of public transport - interrelated elements essential for sustainability and a city's economic competitiveness. It is well researched that major

global cities are not pursuing motorways to solve the land use and transport problems. Hence Council believes that in Sydney public transport should be prioritised, not motorways.

Council is also concerned about the WestConnex planning process, noting the project has been criticised for conflicts of interest, a poor business case and lack of information to assess if the project is economically viable. Given the uncertainty around the economic benefits, Council would not expect the NSW Government to proceed with the project.

Council is also concerned about announcement of contractors prior to completion of EISs and exhibition of the New M5 EIS over the end-of-year holiday period when Council meetings are in recess. On this latter point, Council has written to the Ministers for Planning and Roads & Freight seeking an extension of the exhibition period until the end of February 2016, but no response has been received to date.

Council supports the 2015 *Strategic Review & Transport Modelling of WestConnex* report prepared by SGS Economics & Planning and Veitch Lister Consulting prepared for the City of Sydney, which states that WestConnex:

- won't improve access to city centre jobs as 90% of western Sydney workers commute to the city on overcrowded public transport;
- doesn't align with *A Plan for Growing Sydney's* objective of create job opportunities in Western Sydney and transport links to them;
- won't help transfer freight from Port Botany and Sydney Airport to Western Sydney as critical linking roads are not funded;
- doesn't take into account Badgerys Creek Airport;
- will funnel thousands more cars into Newtown, St Peters, Erskineville, Alexandria, Waterloo, Redfern and Green Square;
- will blight Sydney Park with fast moving traffic, tunnel portals, ramps and ventilation stacks; and
- won't assist the revitalisation of Parramatta Road.

Council also concurs with the January 2016 SGS *Economics & Planning report WestConnex Stage 2 EIS – Review of Strategic Alternatives & Socioeconomic Impacts*, commissioned by the City of Sydney. This report shows there are a number of significant issues with the information presented in the New M5 EIS. There is no detail on how the alternatives were developed and a lack of sufficient detail on the scope, timing and cost of each alternative. No integrated solutions that combine road, public transport, land-use and demand management options have been considered.

The approach to assessment of these alternatives also lacks rigour because each alternative is only assessed against New M5 project objectives rather than by a more rigorous Cost Benefit Analysis or Multi Criteria Analysis. Further, project objectives themselves prevent any non-road based solution from being assessed positively.

The EIS's assessment of socio-economic impacts is limited by methodological flaws, particularly the mismatch between the Study Areas used by the Social and Economic Impact Assessment and the Traffic and Transport assessment. There is also a lack of consideration of the city-shaping impact of the project and a limited assessment timeframe in the EIS. This means the full extent of the social and economic impacts has not been considered.

In addition to issues with the methodology, the abovementioned January 2016 SGS report raises the following key issues:

- the New M5 does not connect people to areas with jobs growth and high value jobs in Global Sydney, a key priority for the Central Subregion in *A Plan for Growing Sydney*;
- the impact on Sydney Park has not been fully addressed;
- the impact on urban renewal areas such as Green Square and Ashmore has not been adequately addressed; and
- the impact on congestion in King Street, Newtown has not been adequately addressed.

It also raises a number of more detailed issues, including:

- the questionable assumption that all sections of WestConnex would be completed by 2031;
- inconsistent reporting of transport modelling with limited assessment of the New M5 section in 2031 as a singular piece of infrastructure rather than as part of the full WestConnex project;
- induced traffic incompletely and inflexibly treated, so that impacts on public transport patronage and active transport volumes are not fully examined;
- inconsistencies in technical aspects of the reporting; and
- information in the EIS not allaying any of the concerns about adverse impacts previously raised in the abovementioned 2015 SGS & Veitch Lister report, i.e. WestConnex will not address the transport challenges being faced by Sydney in the future.

It is evident from the New M5 EIS that the decision to proceed with WestConnex was made prior to an assessment of whether or not the project was the best way to manage Sydney's transport needs. Although strategic alternatives to WestConnex are flagged in the EIS, this is qualitative only.

There is no rigorous quantitative assessment of the pros and cons of alternative multi-modal and demand-management transport options, and how each of these options relates to the objectives of the *NSW State Plan*, *NSW Long-Term Transport Masterplan (TMP)* and *A Plan for Growing Sydney*. Instead the EIS rates alternatives against motorway-biased *project* objectives before dismissing alternatives and presenting WestConnex as the preferred option.

It follows that the New M5 EIS is largely concerned with an assessment of local impacts and mitigation measures for this pre-determined option. Even on this point, the EIS is lacking, as is evident from the discussion of specific issues below.

It is noted that one of the previously-stated objectives of WestConnex is to provide enhanced access between developing areas to the west and the Port Botany/Sydney Airport precinct. Without the Sydney Gateway element, which is not currently within the project scope and only briefly mentioned in the EIS, WestConnex does not provide direct access to the Port or Airport. Furthermore, where assumptions are made regarding potential improved travel times to the Airport/Port, these are dependent on the completion of Stage 3 and the Sydney Gateway - and there is currently no commitment to these.

The EIS, in order to assert its claim that a motorway is the best option, suggests that key customer markets are highly dispersed, involving long distances. It does not give serious consideration to how these customers can be better served by alternative multi-modal options, which could include park-and-ride facilities. Funnelling additional vehicles through the M5 corridor will create traffic congestion closer to the CBD and increase demand for car parking in inner-Sydney, which already suffers from high levels of traffic congestion. Dense inner-urban areas do not physically have the space for continuous growth in the numbers of

vehicles entering which further reduce liveability and proximity benefits for people that live and work in the inner city.

The EIS is incongruous with the *Initial Need for the Project* as set out in the EIS. It states that the overarching key driver for this project is the growth Sydney is expected to see in the coming decades. Specifically, employment growth is expected to be predominantly in the eastern half of Sydney within Global Economic Corridor, whilst population growth is expected to be stronger in the west. This will increase the demand for travel between population in the west and employment opportunities in the east. Council is of the view that multi-modal options that include quality public transport and demand management measures is a more economically efficient way of serving the commuter market than a motorway-only option.

A stated secondary driver for the project is demand for freight movements between the airport and port to the west. This market would also be better served by multi-modal options, including greater use of rail for long-haul freight and greater use rail-road freight terminals such as the Enfield Intermodal Terminal. As WestConnex proposes road-only infrastructure, freight traffic will be slowed by congestion created by commuter traffic between the west and inner-Sydney. Providing some freight-only routes, shifting a proportion of the freight task to rail and providing multi-modal options for commuters is a far more cost-effective means of improving freight operations than the proposed motorway-only option.

Given the above, Council recommends that the following set of alternative multi-modal transport projects (included in abovementioned 2015 SGS report) be evaluated and, where appropriate, implemented instead of WestConnex:

- expansion of the Metro rail service: from Bankstown to Parramatta and Epping/Macquarie Park; from Parramatta to CBD via Ryde/Drummoyne and/or Strathfield/Olympic Park; and from Strathfield/Burwood north to Macquarie Park and southeast to Green Square/Airport and Randwick/Bondi Junction;
- a new road connection from Port Botany to the M5 to improve dispersal of freight from port;
- increased passenger capacity along the Western Rail Line;
- increased passenger capacity along the Airport / East Hills rail line and improved inter-modal connections to stations along that line, including park-and-ride facilities;
- new station(s) on the Airport Line between Green Square and Mascot and removal of taxes that still apply to the two airport stations;
- new and improved bus or light rail connectivity/priority along Parramatta Road and investigation of light rail along that corridor (Council notes that the M4 East section of WestConnex would undermine this potential);
- further expansion of existing light rail network, including further expansion of the light rail network for Parramatta.

These options would potentially meet all of the benefits that WestConnex promotes in a more space and cost effective manner. By removing traffic from existing roads, benefits would also flow to commercial traffic. Importantly, these multi-modal options would stimulate a dense, transit-oriented urban form that would make Sydney more sustainable, liveable and economically competitive. Moreover these options would not involve the significant opportunity costs associated with the alienation of a large area of valuable inner city land for a motorway interchange which could otherwise be effectively used for jobs, housing, community facilities and open space.

On these strategic matters, the EIS has failed to address the Secretary's Environmental Assessment Requirements (SEARs), i.e.:

- no serious assessment of the environmental costs and benefits of the proposal relative to the alternatives, or if the project is in the public interest;
- suggested alternatives only fleetingly considered, and the analysis is narrow and inconclusive, and no information is provided on how the alternatives were selected;
- no detail, compared to the amount of detail on the project itself, on the alternative option of widening the existing M5; and
- no description of any public transport alternatives, although mention is made of the existing East Hills line operating over capacity.

Further, the EIS's assessment of alternatives appears to be biased toward WestConnex, for example:

- that public transport would only partly contribute to relief of arterial roads around M5, whilst not acknowledging a new tolled motorway could exacerbate the congestion by encouraging more vehicles onto surround arterial roads;
- that public transport would do nothing to enhance productivity of commercial and freight generating land uses, not recognising that if it encourages modal shift for trips to employment nodes this would free up road capacity for those freight movements that cannot be made by other means; and
- that the alternative of widening the existing M5 would increase demand on adjacent sections of the road network, whilst claiming this would not happen for the option proposed at the exit at St Peters, e.g. Huntley Street, Campbell Street, King Street, Mitchell Road.

No consideration in the EIS has been given to the possibility of implementing a mixed program of road, rail, light-rail, bus, active transport and demand management options. Instead, alternatives are considered only in isolation. This is not consistent with actual behaviour of the travelling public, where travel decisions are made on the speed, reliability and connectivity of various modes.

In the EIS, the Strategic Project Alternatives are downplayed due to their incompatibility with the project objective to serve a *"highly dispersed customer market and long distance passenger movements"*. This conflicts with other key NSW Government plans, which present a vision for a consolidated city with good access to major employment hubs, most within major centres.

It is accepted that in the future there will be a continued trend of workers from the growing west accessing jobs in the east, particularly jobs within the 'global economic corridor'. However, most of the jobs growth is likely to be in major centres, particularly in the CBD and Parramatta. WestConnex does not (and should not) provide private motor vehicle access to these centres. Space constraints mean that access by private vehicles to these centres will be problematic, and the amenity of the centres will be affected.

Without the Stage 3 and the Sydney Gateway, the New M5 part of WestConnex will fall short of meeting its own objective of connecting Sydney's west and the Port Botany and Sydney Airport. The EIS's assumptions about improved travel times to the airport and port are dependent upon the completion of Stage 3, yet there is no commitment to this stage.

Although the EIS states that the project will generate more than \$20B worth of benefits to the economy, there is no explanation as to how figure has been derived. If the calculation has been based on improved traffic travel times, it would be an overestimation as induced traffic is likely to reduce travel times into the future. The EIS states that the current M5 has been at or near capacity since opening in 2001, currently for more than 13 hours per day, continuing

to impede access to the economic generators it was built to support. With induced traffic, it is anticipated the additional road capacity provided by WestConnex will fill to capacity, so there will ultimately be no improvement to access.

The EIS states that although public transport use is expected to grow, most growth in transport demand will be met by roads over the next 20 years. This reflects an outdated 'business-as-usual' approach to transport planning in Sydney – an approach that has found been found to be ineffective, and as such has been abandoned in most major cities around the world. Council believes that transport investment decisions must prioritise public and active transport in the interests of efficient access and liveability – key elements necessary for the economic success of Sydney into the future.

4. TRAFFIC & TRANSPORT

This section relates to EIS Chapter 9 - *Traffic & transport*. It includes comments from Council staff and a summary of the findings of an independent traffic and transport assessment report by TTM Consulting commissioned by Council. The TTM report, entitled *WestConnex Stage 2 EIS Review of Traffic, Transport, and Modelling, January 2016* is at **Attachment 2**.

A summary of Council staff's comments on traffic and transport aspects of the project are as follows:

- the project will result in many negative local traffic impacts, with few benefits to local community - or the wider community, including toll-paying motorists;
- concern about the project's contribution to traffic growth and increased demand for parking across the LGA, when Council already devotes significant resources towards resolving traffic and parking issues;
- concern about traffic impacts on King Street, Princes Highway, Edgeware Road, Stanmore Road, Sydenham Road, Railway Road, Mary Street, Campbell Street, Unwins Bridge Road and the network of local streets in between;
- concern that traffic growth will increase pressure for new and expanded clearways and removal of kerbside parking (in particular, along King Street, Newtown and Edgeware Road), which will have significant negative impacts on the amenity of streets for pedestrians, residents and businesses;
- abovementioned pressures for clearways and parking will result in conflicts with Council's long-standing objectives of reducing traffic capacity and installing traffic calming devices, walk/cycle facilities, trees/gardens etc. within road reserves;
- Council acknowledges some design work has been recently initiated by Roads & Maritime Services (RMS) to mitigate impacts on King Street, but as yet there is no agreed solution;
- there is at this stage no firm commitment to completion of all stages by 2031, and Council has doubts about the suitability and justification for Stage 2 without the Stage 3 being in place - without Stage 3, there will be no relief from the on-going traffic impact on inner-Sydney;
- although the proposed Sydney Gateway link to Sydney Airport and Port Botany have the potential to mitigate some of the adverse impacts of freight traffic travelling through the Marrickville LGA, there is no guarantee that this link will be provided;
- it follows from the above points that to properly evaluate WestConnex, an over-arching EIS for the entire project is needed, i.e. Stages 1, 2, 3, the Southern Gateway and the Sydney Gateway – and possibly also the Northern and Southern extensions;

- although the *NSW Long-Term Transport Masterplan* is regularly referred to in the EIS, there are numerous sections of this masterplan that encourage transport projects that reduce car use, with is contrary to this project's outcomes;
- there is no explanation of how toll levels (and people's perception of tolls) changes into the future - given the impacts this can have on surface roads and recent toll-road failures, this is a significant omission;
- doubts about the need for the proposed Campbell Road bridge over the Alexandria Canal, as it does not appear to service traffic that is related to the New M5 and raises concerns about it encouraging increased traffic the Marrickville LGA – this bridge should at the very least be restricted to one lane of traffic in each direction;
- the EIS should identify the likely impacts of increased traffic on residential streets in the Marrickville LGA by means of an appropriate local area traffic management (LATM) study, and mitigate those impacts by LATM works funded by the NSW Government;
- the abovementioned LATM study should:
 - include post-implementation reviews to identify and address any unforeseen impacts, with works also to be funded by the NSW Government;
 - be guided by a set of principles for planning and implementation of LATM works to ensure that the outcomes achieve a balance between the competing needs of pedestrians, cyclists and motorists;
 - include works such as traffic calming devices and street gardens, with a focus on all local streets in St Peters and any other street experiencing increased traffic and 'rat-running';
 - implementation of a 40kph speed limit on King Street, Princes Highway north of Campbell Street, Unwins Bridge Road, May street and the surrounding network of local streets;
- all intersections proposed to be reconfigured should be redesigned to minimise their spatial area, minimise pedestrian crossing distances and times, include bicycle priority facilities, minimise use of left-turning traffic slip lanes and include trees/gardens - in particular, these principles should be applied to the Campbell Street / Unwins Bridge Road / Bedwin Road intersection;
- one of the four traffic lanes on the Bedwin Street bridge should be removed to provide a suitable walk/cycle connection over the bridge;
- the New M5 EIS transport model does not include public transport assignment or public transport demand forecasting, and due to the lack of a mode-split process in the modelling, the competing effects of traffic congestion and rail crowding have not been tested for the EIS;
- the absence of long-term traffic modelling means that longer-term traffic growth and associated socioeconomic or sustainability impacts are not being identified, mitigated or monitored;
- concern about increased bus travel times caused by the project – the project should be designed so that it has no impact (or a positive impact) on bus services; and
- potentially significant traffic and road widening impacts on Sydney Park are not adequately assessed.

Regarding strategic traffic issues, Council note that the Stage 2 New M5 project is presented as a standalone project which follows construction of the Stage 1 (M4 East). Stage 3 is a later stage which is not included in the current EIS and the link between the M4 and M5 has the potential to mitigate the adverse impact from the Stage 2 New M5 project. There are doubts about the suitability and justification for Stage 2 works without the potential benefits of Stage 3 being in place.

Even if Stage 3 is eventually completed, Council remains concerned that the time delay between Stages 2 and 3 have serious long-term impacts on the King Street shopping and entertainment precinct. In the longer-term, Council would like to improve the amenity of the King Street precinct through improved public and active transport, demand management programs, traffic calming, street plantings and other public domain improvements.

The Sydney Gateway link to Sydney Airport and Port Botany are possible future links which have the potential to mitigate some of the adverse impacts of trucks travelling through the Marrickville LGA between Parramatta Road/M4 and Sydney Airport and Port Botany. However there is no guarantee that this link will be provided and so the Stage 2 New M5 has the potential to adversely impact on roads in the Marrickville LGA including increased congestion along the following key roads - King Street, Edgeware Road, Sydenham Road, Railway Road, Mary Street, Campbell Street and Unwins Bridge Road.

Regarding operational traffic impacts, Council note that traffic modelling in the EIS compares the AM and PM mid-block traffic flows for 2021 'without project' and 2021 flows 'with project'. The changes in traffic flow show mostly increased traffic for the 'with project' compared to 'without project' scenario (except for the Princes Hwy) - this shows there the project makes traffic flow worse instead of better in the following key streets - King Street, south of Alice Street, Railway Road west of Princes Hwy, Euston Road, north of Sydney Park Road, Edgeware Road, west of Edinburgh Road and Gardeners Road, west of O'Riordan Street.

Measures are needed to reduce the traffic flow in King Street to protect this key shopping and entertainment precinct. The Stage 2 M5 project has increased the traffic capacity of Euston Road as the alternative to using King Street. Marrickville Council and the City of Sydney have requested the proponents to commit to protect King Street and the vehicle route around the northern and western sides of Sydney Park by:

- reducing the traffic capacity of Princes Hwy north of Campbell Street (to encourage traffic to use Campbell Street and Euston Road);
- rearranging the intersection King Street, Princes Hwy and Sydney Park Road to limit the traffic feeding into King Street; and
- rearranging the intersection King Street/Princes Hwy with May Street to left-in and left-out only.

While the Stage 3 M4-M5 connection may potentially mitigate some of the adverse impacts of Stage 2 there is no guarantee that Stage 3 will proceed. The *Marrickville Truck Tunnel Feasibility Study (2001)* identified that "*Despite the percentage increase in the movement of containers by rail, the overall increase in containers handled at Port Botany indicates that the road movement of containers between Port Botany and Western Sydney through Marrickville will continue to increase by 40% over the next 10 years.*"

Community expectations are that the New M5 would relieve traffic impacts on surface roads. However, the traffic modelling for the New M5 project shows increased traffic on roads in the Marrickville LGA including the following:

- *St Peters Tunnel Portal/Parramatta Road Haberfield portal* – increased traffic from rat-running traffic intrusion in nearby residential areas of St Peters, Camperdown, Sydenham, Stanmore, Petersham and Marrickville;
- *King Street* – additional traffic and increased pressure for the introduction of Clearways with a consequential adverse impact on amenity and economic activity in the King Street, Newtown precinct. The EIS shows a traffic decrease of 21% northbound and a substantial increase of 62% southbound when the 'without project' is compared to the 'with project' in 2031 – traffic management measures are needed to encourage traffic to

use the additional capacity provided in Euston Road for northbound traffic from the New M5 Stage 2 link;

- *Edgeware Road* - additional traffic and increased pressure for the introduction of Clearways with a consequential adverse impact on the amenity and economic activity in the Edgeware Road, Newtown precinct. The EIS shows a traffic increase of 8% eastbound and a substantial increase of 42% westbound when the 'without project' is compared to the 'with project' in 2031;
- *Railway Road* - is already heavily congested and the EIS shows a traffic increase of 33% eastbound and a substantial increase of 57% westbound when the 'without project' is compared to the 'with project' in 2031 AM;
- *Sydenham Road* –Traffic from the M4 extension has the potential to use Sydenham Road and Railway Road to travel through the Marrickville LGA to get to Port Botany. The current one-way traffic flow of Buckley Street and Railway Parade should be reverted to two-way traffic flow to improve access and discourage traffic including trucks being drawn along Sydenham Road from the M4 through the Marrickville Town Centre to Port Botany;
- *Gleeson Avenue/Railway Road* - additional traffic and increased pressure for the introduction of Clearways and extended parking bans;
- *Mary Street* (one-way westbound from Canal Road to Unwins Bridge Road) – adverse impact on residential amenity;
- *Bedwin Road* – increased traffic congestion along Edgeware Road and Bedwin Road and potential for increased crashes especially at the intersection of Edinburgh Road / Bedwin Road;
- *Campbell Street* – additional traffic and increased pressure for the introduction of Clearways or extended parking bans; and
- *Unwins Bridge Road* - additional traffic and increased pressure for the introduction of clearways or extended parking bans from traffic to and from the St Peters portal.

It is recommended the conditions of approval for the project include the following requirements:

- investigate in consultation with Council and the local community of a traffic management measures for King Street, the Princes Highway and Sydney Park Road to minimise the amount of traffic using King Street, May Street, Sydney Park Road and Princes Highway to the north of Campbell Street;
- investigate and fund the development and implementation of a Local Area Traffic Management scheme for Sydenham, St Peters, Newtown, Camperdown and Petersham in consultation with Council and the local community to minimise the intrusion of through-traffic. Remedial measures to be installed at no cost to Council; and
- investigate, in consultation with RMS, a proposal to revert the one-way traffic flow of Buckley Street and Railway Parade to two-way traffic flow to improve access and discourage traffic including trucks being drawn along Sydenham Road from the M4 through the Marrickville Town Centre to Port Botany.

Issues raised by Council regarding the construction stage are as follows:

- level of service (LOS) for intersections in the vicinity of the St Peters interchange were modelled as standalone intersections, and the EIS notes that "... *this does not reflect the true LOS for those that are part of a co-ordinated system of signalised intersections.*" The results show a worsening of the performance of the intersections and especially

Princes Highway / Railway Road, Princes Highway / Canal Road and Canal Road / Burrows Road;

- reduced travel times in Railway Road, Princes Hwy and Canal Road will impact on bus services in particular and worsen the reliability of bus services using these roads;
- impacts on the Marrickville LGA during the construction of the project include potential adverse impacts from the removal of spoil at the St Peters interchange which may occur at the same time and clash with the removal of spoil from the nearby Sydney Metro rail project (south of Bedwin Road) which proposes the 'Sydenham dive' for the tunnel entrance to the proposed Metro (2017 to 2024);
- impact on parking for residents and businesses on May Street, as the project removes approximately 38 on-street parking spaces on May Street, including the removal of a number of resident parking spaces. Dwellings in May Street typically do not have off-street parking and rely on kerb-side parking. Council's December Traffic Committee endorsed a proposal for 30 resident parking scheme spaces in May Street; and
- the EIS considers the cumulative construction impacts from other construction projects which occur at the same time as the New M5. This assessment fails to take account of the impact of the proposed Sydney Metro rail project which will generate spoil removal trucks on the road network in the vicinity of the New M5 project. The Sydney Metro rail project will generate spoil removal trucks via Bedwin Road, Campbell Street and then the Princes Hwy.

Conditions of approval for the project should include the following:

- parking to be provided for residents of May Street to compensate for the loss of 38 Parking spaces during construction work, located as close as is practical to these residents;
- final parking arrangements in May Street to be returned to the pre-EIS parking supply including the reinstatement of the 30 resident parking spaces endorsed by Council's December Traffic Committee in May Street; and
- coordinate construction traffic movements with the Sydney Metro rail project to minimise the impact of spoil removal from both projects.

The proposal will result in issues for public transport issue relates to impacts on bus services. It is noted in the EIS that "... *there are clearly specific locations and routes likely to be impacted by increased travel times.*" The EIS shows changed travel times for bus routes with the following routes identified with increased travel times in the AM or PM peak (or both): 305, 308, 309, 348, 370, 400, 410, 418 and 422. Conditions of approval for the project should include a requirement that bus priority measures be considered for the 348 bus route adjacent to Sydney Park in Princes Hwy north of Campbell Street and Sydney Park Road between Princes Hwy and Euston Road as part of the King Street Gateway.

Regarding pedestrian facilities, Council note that the project involves the upgrade of a number of intersections with traffic lights. These upgrades should be undertaken in a way that maximises pedestrian access and safety through minimising the spatial area of intersections, minimising crossing lengths, giving pedestrians priority in traffic light phasing and minimising provision of left-turn slip lanes for traffic. In particular, the project should improve pedestrian access on the network in the vicinity of the St Peters interchange including additional mid-block pedestrian crossings on Princes Highway between Canal Road and Railway Road and design changes to the intersection of Bellevue St and Princes Highway to accommodate right turn movements and pedestrian crossings.

It is recommended that conditions of approval for the project include the following:

- each leg of the intersection to be provided with a traffic light controlled pedestrian crossing to improve access and safety for pedestrians;
- traffic light changes should remove any left-turn slip lanes as these adversely impact on pedestrian safety;
- provide additional mid-block pedestrian crossings on Princes Highway between Canal Road and Railway Road to improve pedestrian access and safety; and
- amend the design of the intersection of Bellevue Street and Princes Highway to accommodate right-turn movements and pedestrian crossings to improve pedestrian access.

The project proposes the installation of exclusive on-road cycling facilities along Campbell Street, which is supported in principle. Concern is raised at the provision of an above-ground cycleway and pedestrian path/bridge on the south side of Campbell Street, as it does not include emergency access, rest spaces, shade or adequate connections to local streets. It is recommended that conditions of approval for the project include options for an at-grade cycle way instead of the proposed elevated structure to address the above concerns about the elevated path.

Regarding kerbside parking, the EIS shows permanent removal of 400 on-street car parking spaces in various locations and the installation of 34 on-street and 26 off-street parking spaces. The loss of a significant number of on-street parking spaces will adversely affect residential amenity and business activity. The EIS does not include any details on the kerbside parking spaces to be removed once the project is operation.

It is recommended that conditions of approval for the project include the following:

- minimise the loss of on-street parking spaces associated with the construction activity, and during construction replace on-street parking as close as is practicable to the location where the spaces were removed; and
- minimise the permanent loss of on-street parking spaces associated with the operation of proposal and reinstate parking temporarily removed during work as close as soon as practicable.

The following discussion is based on the abovementioned TTM report, entitled *WestConnex Stage 2 EIS Review of Traffic, Transport & Modelling, January 2016* - at **Attachment 2**.

TTM advises that the traffic forecasts for the New M5 do not support completion of the project at this stage. Whilst the reasons are many, they can be summarised as:

- the proposed tolling regime results in traffic avoiding the motorway system and diverting to local roads; and
- the forecast traffic volumes for the New M5 are very low - by comparison, they are lower than for the Sydney Cross City Tunnel.

TTM is of the view that the implications of induced demand have not been adequately assessed and that the forecasts in turn are not reliable for economic or financial assessment. Should the project proceed in its current form there remains a number of construction and operational issues which need to be addressed.

At a strategic level, TTM finds it difficult to see how the New M5 can be justified given the low traffic forecasts. The main traffic impact will be on Campbell Street/Road and Euston Road. The completion of the full WestConnex will have detrimental impacts on peak hour traffic on Edgeware Road and King Street resulting in likely diversions to other routes. The EIS does not address this issue, and TTM recommends that the justification for WestConnex

be questioned given the significant traffic diversions it proposes that would be best accommodated within the existing road network.

For the operational stage, TTM concludes that the traffic forecasts do not indicate significant traffic impacts on streets within the Marrickville Local Government Area with the addition of the New M5 only. An allowance will need to be made for the increase in traffic on Edgeware Road which will in addition to that forecast for the expansion of the Marrickville Metro shopping centre.

The longer term forecasts with completion of the full WestConnex project and the Southern extension show a major increase in peak period traffic flows on Edgeware Road and King Street. The implications of this have not been addressed in the EIS.

The EIS shows a turn bay for traffic westbound on Campbell Street to turn right into May Street. This movement is currently banned and should remain so as it could result in diversions to King Street. The EIS shows a turn bay for traffic westbound on Campbell Street to turn right into the Princes Highway. This movement is currently banned and should remain so as it could result in diversions to King Street.

Provision is made for a bridge connecting the raised cyclist and pedestrian bridge from the southern of Campbell Road and Sydney Park. TTM is of the view that an at-grade solution on the northern side of Campbell Street would be a more logical solution in developing the regional cycle network.

Whilst not explicit in the EIS, the right turn from the New M5 to the new Campbell Road Bridge link to Bourke Road will be banned. This effectively makes the new Campbell Road Bridge link a through route replacing the current route via Campbell Road / Burrows Road / Ricketty Street. TTM supports this outcome.

Regarding the construction phase, TTM is of the view that if the project proceeds as per the EIS, there are a number of matters that will need to be addressed.

Construction activities are expected to commence in late 2016 and conclude in 2019. Movement of spoil will be via the Princes Highway to the south, and this is not expected to cause significant disruption or adverse impacts on residents. It is essential that planned road upgrades for Campbell Street/Road as well as the upgrade of the intersection of Campbell Street/Road with the Princes Highway are completed prior to traffic associated with the New M5 and Sydney Metro entering the system.

There is a need for a shuttle service between compounds if parking is to be accessible for workers. There is also a need to provide adequate accessibility between the compounds and public transport services in general. In this regard, it is recommended that any shuttle service also link to the local railway stations.

TTM is of the view that the proposed arrangements for active transport are not reasonable. Council should be consulted in relation to significant changes proposed for existing pedestrian and cycling infrastructure during the construction phase. In particular, the Bourke Road cycleway diversion is not acceptable and in relation to pedestrian facilities, the proponent will need to follow all Marrickville and City council policies including appropriate, accessible paths of travel during construction.

It is recommended that the treatment of bus stops is reconsidered in the interests of maintaining at least the current level of service provided to the community. In particular, the southbound bus stop on the Princes Highway south of Campbell Street should remain open to public transport users during the construction phase. It is noted that this may require its

relocation to a place south of Albert Street. Further, the southbound bus stop on Canal Road south of the Princes Highway should be retained in its current location.

TTM recommends a green travel plan be prepared for the project, which would encourage and facilitate travel to and from work by means other than car. Provision should be made on-site for workers who travel by bicycle.

5. VISUAL IMPACTS & URBAN DESIGN

This section relates to EIS Chapter 14 - *Visual impacts & urban design*.

A fundamental aim for the proposed St Peters interchange should be maximising productive use of the land and minimising areas of 'lost space', i.e. areas that are inaccessible, disconnected, inactive and ambiguous. Achieving this aim can be problematic for large motorway interchanges and road widenings surrounding motorway portals. A further aim is maximising integration of the interchange with the surrounding urban fabric and maintaining and enhancing local and regional walking/cycling connectivity.

Currently the layout of the interchange structures, infrastructure ponds and associated buildings consumes large areas of land and restricts access to other potentially productive uses – the latter necessary to ensure sustainability, liveability and a sense of community ownership of the area. The approach of bringing all road connections to the surface in one place is questioned, as the multitude of above-ground interconnections constrains walk/cycle access and restricts other productive uses of the land.

A much greater portion of the site could be devoted to productive uses if the following design changes were implemented:

- interchange roads provided underground in tunnels;
- 'airport gateway' road relocated to create a more direct connection to Airport Drive further to the south; and
- the building footprint of portals significantly reduced.

Accordingly, the layout of the interchange area and surrounding road works should be reconsidered within a broader urban design context.

Following is an urban design assessment of the project against four principles that have been established to guide Council's *Public Domain Strategy* (soon to be placed on public exhibition):

- *Place making* - reveal the place;
- *Sustainability* - a well-planned, sustainable urban environment;
- *Connectivity* - making it easier to get around; and
- *Liveability* - making places for people.

Regarding *place making* - the place, as former brick pit and current landfill and recycling centre, presents a major opportunity for new productive uses while maintaining the legibility of the former brick pit landform. There are also opportunities for improved integration with surrounding employment, residential, recreation and infrastructure land uses and the surrounding street pattern to create a unique new place.

More of the site could be used for recreation (especially active recreation) than is proposed in the EIS. In the Marrickville LGA and region, there is strong demand for sports fields and a

shortage of suitable land for this purpose. Indoor recreation facilities could also be co-located with other active community facilities. The fact that the site is affected by road and aircraft noise makes it more compatible for active recreational use than for more noise-sensitive uses.

The site could also accommodate community facilities and employment uses, including 'affordable' employment space. These uses would be best located next to (or close to) adjoining existing residential and employment areas, utilising existing street fronts to integrate new development with existing. These uses could also be located within the central motorway viaduct areas to create unique new places, provided the connections, design layout and process of selecting and managing uses were carefully considered. This would provide activation, making the site more interesting and safe for the other activities.

Regarding *sustainability* - apart from the fact that WestConnex itself represents unsustainable development, the dedication of a large area of land to a motorway interchange with only limited areas of land accessible for other uses (public or private) is not considered sustainable use of land. The layout and design of the interchange should be reconsidered to minimise the footprint of the motorway structures, buildings and unnecessary curtilages.

For the interchange site, the revised layout should provide:

- quality walk/cycle access with connectivity to surrounding streets;
- an almost continuous tree cover;
- native habitat to support high levels of biodiversity;
- water sensitive urban design features;
- treatment and/or removal of contaminated soil; and
- best practice waste management systems.

Whilst some areas could be reserved for natural vegetation and fauna habitat, walk/cycle access to areas nearby should still be permitted so these areas are not completely isolated.

The widening of surrounding streets and roads is considered excessive and will lead to significant amenity impacts. Examples are the new unnecessarily wide Campbell Road Bridge and the widening of Euston Road. The latter will result in the loss of a row of mature street trees, yet ultimately there will be no traffic benefit - vehicle 'bottle-necks' will simply be moved further along Euston Road. These proposals show that WestConnex prioritises unsustainable private car use over sustainable transport and facilitates loss of land that could otherwise be put to productive use.

Regarding *connectivity* - given the current barrier and dislocated structure of the site, a major opportunity exists to transform the area to create a highly connected and integrated place. Further design work is needed to create connected spaces within viaduct interchange areas and to provide walk/cycle connections to and between surrounding streets, open spaces and suburbs. Linkages to and between currently inaccessible spaces could be achieved by utilising clearances under motorway viaducts, attaching local walk/cycle paths (or local motor vehicle paths) on the side of motorway viaducts and by providing other separated local paths and bridges.

Whilst the shared path around the western perimeter of the interchange site and walking/cycle viaduct parallel to the south of Campbell Road provides two major connections across the site, further walk/cycle connections should be created.

Additional connections could link the new open space area south of Campbell Road to Gardeners Road via a walk/cycle path on the side of the motorway viaduct. They could also

link the new Gardeners Road Bridge over Alexandra Canal, with links to the spaces next to and under the motorway at Burrows Road and Alexandra Canal. A more direct route could be provided from the new open space south of Campbell Road to Canal Road linking to the main areas that are next to and under the motorway viaduct.

Given the scale of the project and associated bridge works over the Alexandra Canal, it is expected that the project would go some way toward provision of a continuous walk/cycle path on both sides of Alexandra Canal that link back to the paths on the new bridges across Alexandra Canal. The project should also facilitate improved pedestrian crossing conditions at the King Street / Sydney Park Road intersection.

The proposed elevated design of the walk/cycle path south of Campbell Road limits opportunities for shorter links over sections of roads and opportunities for alternative routes. It also disconnects path users from street level activity, creating a less safe walk/cycle environment. Instead, the path should be at ground level wherever possible and/or provide links back to ground level at cross streets. It should also allow access to the Alexandra Canal to connect to future Alexandra Canal foreshore paths.

Whilst a high standard of design for the proposed walk/cycle bridge across Campbell Road is supported, the dual bridge design is questioned. Savings from a simpler design could enable funds to be redirected toward other walk/cycle connections and bridges, as discussed above.

The design of surrounding streets and traffic light phasing should also allow for a high standard of pedestrian crossings (at street level) and links to Sydney Park. This is important so that the motorway interchange does not result in vehicular traffic dominating the area. Roadway designs for Barwon Park Road, May Street and Burrows Road should include traffic calming to ensure these streets serve only a local traffic function.

It is inconceivable that no separate pedestrian/cycling study has been undertaken for the EIS. Given the importance of active transport to inner-Sydney it would be expected that the EIS would go further than it has to identify opportunities for walk/cycle network improvements and how these can be integrated with the surrounding network.

Regarding *liveability*, the development of large area of land that is currently underutilised and degraded provides the opportunity for a major improvement in the liveability of this area. This can be achieved through access to open space, enhanced street landscaping, vehicle speed reduction and traffic calming, integration with waterways, passive and active recreation facilities, community facilities, active transport connections and inclusion of bush/habitat areas.

Further investigation of how all parts of the interchange site can be activated and made accessible for productive uses. This should include identification of infrastructure necessary to achieve this. Consultation with the wider community, surrounding councils and other stakeholders should also be undertaken. Such infrastructure should be flexible to allow use of the space to evolve over time - to transform the area into an attractive urban 'place'. The gradual transformation of the former St Peters brick pits and landfill site into Sydney Park is an example of this kind of slow transformation.

The excessive road widening of Campbell Street and Campbell Road west of Barwon Park Road has potential to create vast areas of inactive and unsafe streets with high vehicle speeds low levels of pedestrian surveillance. The linear series of open spaces require careful design to ensure they become useful, activated spaces. Alternatively, these spaces might present redevelopment opportunities for low-rise affordable housing (up to 3 storeys)

to enhance activation of street edges and to enable value capture from the housing to be invested into improving other parts of the site.

6. CONSULTATION, SOCIAL, ECONOMIC, HERITAGE & PROPERTY

This section relates to EIS Chapters 7, 13, 15, 20 & 23 – *Consultation, Social & economic, Non-aboriginal & aboriginal heritage and Land use & property.*

Council's main issue regarding consultation is absence of community or other stakeholder consultation in the development of the business case. It is acknowledged that such consultation need not be undertaken for every NSW Government infrastructure project, but is justified for a very large city-shaping transport project that will have implications for Sydney and NSW for decades to come.

A further consultation issue is the two-month exhibition period over the end-of-year holiday period when many staff and consultants are on leave, Council is in recess and the community is not focused on matters of this kind. This has made it difficult for Council staff to develop a submission and it has not been possible for Councillors to consider this submission while Council meetings are in recess. In December 2015, Council wrote to the Minister for Planning and Minister for Roads & Freight requesting an extension of the exhibition period until the end of February 2016, but no response has been received to date.

In January 2015 the WestConnex Delivery Authority (WDA) (now Sydney Motorway Corporation [SMC]) invited Council to participate in a Council Reference Group (CRG) together with representatives of Botany Council and the City of Sydney. Council identified that as the ultimate authority responsible for the street network surrounding the interchange and the New M5 once operational, the RMS was a critical stakeholder. Council's participation in the CRG was therefore conditional upon RMS involvement.

Meetings of the CRG commenced in January 2015 and were held on a monthly basis, intending to run through until the EIS commenced public exhibition. Some months were skipped and the last meeting occurred in September.

The objectives of the EIS, as outlined in adopted Terms of Reference, broadly related to gaining feedback and input from councils on the St Peters interchange design and identifying the challenges and opportunities for transport, urban design and local roads.

Council dedicated significant time and resources to analyse available information and provide balanced feedback and input, recognising the broader project requirements and objectives. Together with the City of Sydney staff made considered suggestions to optimise the project for a better balance between the project impacts, the existing compact network of inner-city streets and the needs of the community.

Many of the suggestions and opportunities identified and discussed were acknowledged throughout this process. Although they are clearly linked to the project scope, they have been excluded from the proposal in the EIS.

Key matters which Council raised are summarised as follows:

- whilst opposing the acquisition of land and the widening of Campbell Street, Council stated that if widening occurs it should achieve a street design that balances the needs of motorists, pedestrians, residents, businesses and community. This would best be achieved with a minimal number of traffic lanes, minimal lane widths, generous footpath widths and kerb side parking along both sides, for the full length of the widened street.

With the large amounts of residual land from acquisition there is no constraint to achieving this but it does not form part of the proposal;

- intersection designs for shortest possible pedestrian crossing distances, no left turning slip lanes and pedestrian priority with traffic light phase settings;
- extension of the Campbell Street cycleway to north over Bedwin Street Bridge with reallocation of some of the available four traffic lanes;
- preventing through vehicle movements of Mary Street, St Peters;
- commitments to enhanced pedestrian safety and amenity through altered street conditions and reduced speeds on local roads;
- restrictions to traffic movements at May Street/ Princes Highway;
- reduced number of traffic lanes on Princes Highway/King Street and Sydney Park Road, north of Campbell Road; and
- commitment to no new clearways, no increased duration for existing clearway and no loss of kerbside parking, particularly in relation to King Street, Edgeware Road and Unwins Bridge Road.

It is acknowledged and appreciated that SMC and RMS are continuing to work with Council on a parallel process to determine design outcomes for Princes Highway (north of Campbell Street), King Street and Sydney Park Road, including the intersection of King/May Streets and King St and Sydney Park Road. However, as these opportunities are directly linked to the project, they should be part of the proposal the subject of this EIS or at the very least enforced as requirement of any approval to proceed.

Council requests that if the project proceeds to approval, conditions must be imposed to ensure these outcomes are delivered before the New M5 is operational.

Council has previously expressed its concerns about the direct impact of the substantial number of property acquisitions required for this project. Residential acquisitions along Campbell Street, St Peters are a particular concern due the significant direct impacts on the households affected, along with the social and visual impact on the wider community from the relocation of people and demolition of houses. Council sites are also directly affected, including Camdenville Park, St Peters. Council has concerns about the need to delay the planned upgrade of this park (including a planned BMX bicycle track) to provide for a construction compound for the project.

The EIS's social and economic assessments are not adequate. There appears to be little background to the figures claimed in economic benefits, and the social assessment is lacking because it:

- has not involved profiling or direct consultation with affected people and communities to assist with identification of impacts and mitigation measures;
- does not consider how the project will improve people's lives by creating healthy built environments that facilitate recreation and active transport;
- does not explain how it improves equity – although the project will improve private vehicle access in the short-term for some, this is at the expense of others – particularly poor and vulnerable population in the area who have no choice but to live with the impacts;
- does not improve sustainability – as discussed elsewhere in the this submission, WestConnex will entrench car dependency, divert funds from more sustainable options and in the long-term, congestion improvements are likely to fall away as induced traffic fills the additional road space; and

- does not commit to helping people to manage the changes in their lives that will occur because of the project.

The New M5 will not have a positive effect on the heritage values of the Marrickville LGA - in fact, there will be significant negative impacts through demolition of heritage fabric, loss of cultural heritage and loss of amenity in the historic suburbs of St Peters and Newtown.

The main direct heritage impacts on specific properties are:

- demolition of 8 heritage buildings listed on the Roads and Maritime Services Section 170 register: 28-44 Campbell Street St Peters;
- demolition of 65 period dwellings, protected by Part 4.1.11 Marrickville Development Control Plan 2011 on Campbell Street, Brown Street and Albert Street St Peters; and
- reduction in the size of Camdenville Park and the Goodsell Estate Heritage Conservation Area.

Added to this are indirect impacts of reduced amenity through increased noise, traffic and air pollution affecting the following heritage properties and historic precincts.

- *105-119 May Street St Peters (Heritage Item I273 MLEP 2011)* has not been identified in the M5 East documentation. It may require protection from road works related to the realignment of the Campbell Street/Unwins Bridge Road intersection. Additionally, widening the road, increasing the lanes and reducing parking would negatively affect the value of these properties and therefore their significance is threatened.
- *Brick Road and Footpath with stone kerbing, Victoria Street St Peters (Heritage Item I283 MLEP 2011)* has not been identified in the M5 East documentation. A fabric survey should be undertaken prior to commencement of works, protective measures implemented to ensure the brick road and stone kerbing and guttering is not damaged by vehicles during construction, and regular monitoring of the site undertaken throughout the works, to ensure it is not damaged.
- *C2 - King Street and Enmore Road Heritage Conservation Area* - the heritage significance of the King Street Enmore Road Heritage Conservation Area (HCA2, Schedule 5, MLEP 2011 – assessed with State significance) lies in its continuous use as an active retail strip since the 1830s. In order to protect the retail use traffic volume should be retained at, or below, current levels, and no clearways should be located along the street. Without these two measures the resulting negative impacts to the amenity of the street would be felt by: pedestrians, residents of shop top housing, and most significantly retailers, many of whom trade with their shopfronts open conducting outdoor dining and footpath trade. The noise, dust, volume of traffic, and its proximity to the footpath if clearways are introduced, will reduce the patronage and liveability of the precinct, this in turn will negatively impact its vibrancy and economy, jeopardising the street's heritage significance as an historic retail street.
- *Heritage Items within King Street and Enmore Road Newtown HCA 2:*
 - I272 – St Peter's Railway Station;
 - I159 – St Peters Hotel - 631 King Street Newtown;
 - I158 - Botany View Hotel, 597 King Street;
 - I154 - Former ANZ Bank, 327 King Street;
 - I153 - Former CBC Bank, 325 King Street;
 - I156 - Former Molloy's Shop 539 King Street;
 - I157 - Former Doumany's Shop 555 King Street; and
 - I155 - Terraces with Shops 415-419A King Street.

- *I275 - St Peter's, Cooks River Church of England, 187 & 211 Princes Highway* - this State Significant church is the oldest extant building in the Local Government Area. It may be susceptible to damage from vibration due to its age and fragility. A fabric survey should be undertaken prior to commencement of works, and regular monitoring of the site undertaken throughout the works, to ensure its current condition is maintained.
- *I312 - Dynamo Auto Electrical Garage* - the retention of the Dynamo Auto Electrical Garage at the corner of Princes Highway and Canal Road St Peters, and its incorporation into the design, is suitable. A Conservation Management Plan should be procured before commencement of the works. A fabric survey should be undertaken prior to commencement of works, and regular monitoring of the site undertaken throughout the works, to ensure it is not damaged.
- *I277 – Southern Cross Hotel* - this building is very close to the works and will be susceptible to damage from vibration, adequate protective measures should be taken prior to construction. A fabric survey should be undertaken prior to commencement of works, and regular monitoring of the site undertaken throughout the works, to ensure it is not damaged.
- *C16 - Goodsell Estate HCA* - standards of remediation of Camdenville Park post construction should be negotiated with Council.
- *Draft Lackey Street HCA, incorporating Simpson Park* - provide higher resolution details of landscape design proposals for public consultation prior to the works affecting Simpson Park. Take into consideration the feedback received from consultation.
- *I281 - Town and Country Hotel* - provide higher resolution details of landscape design proposals for public consultation prior to the works affecting Campbell Street. Take into consideration the feedback received from consultation.
- *I280 – Waugh and Josephson Industrial Buildings, 1-7 Unwins Bridge Road* - provide higher resolution details of landscape design proposals for public consultation prior to the works affecting Campbell Street. Take into consideration the feedback received from consultation.
- *I270 - Alexandra Canal* – a fabric survey should be undertaken prior to commencement of works, and regular monitoring of the item, in the vicinity of the site, undertaken throughout the works, to ensure it is not damaged.
- *I271 - St Peter's Public School, 93A Church Street* – a fabric survey should be undertaken prior to commencement of works, and regular monitoring of the site undertaken throughout the works, to ensure it is not damaged.
- *I278 – 'Claraville' Victorian Filigree Mansion 21-23 Silver Street* - a fabric survey should be undertaken prior to commencement of works, and regular monitoring of the site undertaken throughout the works, to ensure it is not damaged.

Regarding aboriginal archaeology and non-aboriginal archaeology, Council requires the proponent to follow the recommendations of the Office of Environment and Heritage on all archaeological practice and monitoring, and to ensure archaeology is included in the interpretation strategy and design. Archaeological management plans should be prepared where necessary.

Regarding archival recording, Council requires (prior to the work) a photographic archival record should be undertaken in accordance with the Office of Environment and Heritage policy, and a copy provided to Marrickville Council of all areas affected by the works, in particular the streetscapes of Campbell Street, Brown Street and Albert Street St Peters.

Regarding interpretation, Council requires the proponent to engage an interpretation specialist and complete interpretation design in conjunction with public art process and detailed landscape design in consultation with staff and St Peter's community.

All heritage items to be retained (within the construction site and/or directly impacted by the works) require an up to date Conservation Management Plan, to ensure appropriate works to/around each item.

All buildings proposed to be demolished should require salvaging of demolished heritage fabric or relocation of entire buildings where appropriate as a condition of approval/contract. Salvaged fabric should be disposed of at local retailer/s of second hand building materials. Salvageable materials include bricks, windows, doors, verandah posts, stone, tiles, timber flooring, timber joists, beams, rafters, battens, and framing, chimney pots, roof tiles and sheeting, fireplaces, mantle pieces, skirtings and architraves, light fittings, fences, gates, balustrades staircases, door and window hardware, bathroom, laundry and kitchen fittings.

7. AIR QUALITY

This section relates to EIS Chapter 10 - *Air quality*.

Council's assessment of this part of the EIS is based primarily on a report by Air Noise Environment Pty Ltd commissioned by Marrickville Council entitled *Independent Peer Review - Appendix H, Air Quality Assessment, WestConnex New M5 Environmental Impact Statement, January 2016* – at **Attachment 3**. Council staff comments have also been considered in this assessment.

The Air Noise Environment peer review considers the EIS's air quality assessment to be an in-depth, high quality analysis of the air quality issues associated with this project. It points out that as with any project of this complexity, there are numerous uncertainties associated with the analysis of potential impacts, and the EIS's assessment has sought to address these in a thorough, scientifically sound manner.

The methodology adopted by the EIS has included further development of current methodologies in an attempt to improve the assessment of specific aspects, particularly where approaches used in the past have been less than ideal. Whilst these attempts to develop improved methodologies are an important step in developing an understanding of the impacts of complex infrastructure projects, there are inherent risks in the application of methodologies that have had limited application to tunnel projects in the past. This has resulted in some specific issues that have not been satisfactorily addressed in the EIS.

These issues relate primarily to the limitations of the dispersion modelling methodology (GRAM/GRAL model) with respect to:

- building downwash effects;
- data from multiple meteorological stations;
- hourly time varying emission rates;
- time varying emission temperatures; and
- the number of receptors where predicted impacts can be considered in detail.

The EIS has sought to address these limitations through sensitivity analysis and verification of the datasets used. However, these factors combine to introduce significant uncertainty to the predicted air quality outcomes, particularly for the predicted short term nitrogen dioxide concentrations.

These effects are likely to be most apparent for the dispersion of emissions from the ventilation stations. The estimates for variability presented in the assessment confirm +/-50 % variability for building downwash and +/-30 % variability for emission temperature for 24-hour average predicted concentrations. Additional uncertainty would be added to the predicted impacts of the ventilation stations as a result of the smoothing of hourly emission rates, as these uncertainties relate to 24-hour average data. This could result in predicted non-compliances at a number of additional receptors in close proximity to the ventilation outlets. There is also variability introduced due to the use of a single meteorological station that is located in the centre of the overall WestConnex modelling domain for the prediction of the meteorological data used in the GRAL modelling. This is opposed to use of data from the Earlwood monitoring station that is in closer proximity to the new M5.

The overall uncertainty associated with the modelling predictions is considered to be significantly reduced for the road-related emissions. It is important to recognise that road traffic emissions are the overwhelmingly dominant source in the modelling domain. Similarly, additional uncertainties are likely to be reduced for the pollutants with longer averaging times (CO, PM10 and PM2.5), and are most significant for predicted 1-hour average nitrogen dioxide concentrations.

The adopted methodology does not satisfy all of the requirements of *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW*, and the EIS does not confirm that the NSW EPA has approved the modelling methodology that has been adopted. Confirmation should be sought from NSW EPA to confirm that the GRAM/GRAL modelling methodology is acceptable.

A further area of relevance to the air quality outcomes of this project is the potential for the traffic volumes for the project to differ markedly from those given in the EIS. As noted in the EIS, history demonstrates that operational traffic volumes through road tunnels can differ markedly from those projected at the design phase. In many cases, traffic volumes are lower (Cross City Tunnel, Clem7, Airport Link, for example). In some cases, traffic volumes are higher and the traffic mix can over time differ significantly from when the project was first constructed. The M5 East Motorway tunnel is an example of this issue. The EIS has attempted to address this by considering a worst-case scenario, whereby it is assumed that the emission concentrations from the tunnel ventilation outlet are equivalent to the licence limits imposed on the NorthConnex ventilation outlets.

Providing the tunnel operating licence requires action to be taken when these emission limits are exceeded (such as limiting vehicles accessing the tunnel) this approach is considered reasonable.

Additional specific issues that have been identified in the peer review that warrant further consideration are as follows:

- completion of a quantitative construction air quality assessment, focussing on the risk of particulate impacts and including the potential for release of crystalline silica;
- appropriate monitoring programmes to adopt during the remediation of the Alexandria landfill site to confirm that appropriate health and amenity criteria are achieved;
- necessity of incorporating portal emission monitoring if a condition requiring no portal emissions is imposed;
- verification and justification of the meteorological dataset relative to the Earlwood meteorological dataset that is in closer proximity to the project area;
- consideration of building downwash effects for the modelling of the ventilation station outlets;

- consideration of hourly varying emission rates (as required by the NSW EPA methodology) and hourly varying emission temperatures;
- demonstration of how the ventilation design will provide for varying outlet diameters.

The peer review concludes that the EIS's prediction of compliance with the air quality goals for the majority of pollutants is reasonable. The short-term predicted non-compliances are related principally to road traffic emissions, and these impacts are also present for the existing environment. Overall reductions in pollutant impacts are predicted for the majority of receptors. The peer review states that providing the issues identified in this review are addressed, and the conclusions of the EIS do not change significantly as a result, the New M5 is not likely to significantly worsen local and regional air quality.

8. CONTAMINATION, FLOODING & WATER MANAGEMENT

This section relates to EIS Chapters 16 to 19 - *Soil & water quality, Contamination, Flooding & drainage and Groundwater*.

The EIS's investigation of contamination issues could only be considered a Preliminary Site Investigation as defined by the NSW EPA's *Guidelines for Consultants Reporting on Contaminated Sites* (2011). As such there is not sufficient information to determine the full contamination impacts of the proposal. A Detailed Site Investigation is warranted prior to approval - not deferred to later stages.

Such a study is justified by the large scale of the project and the potentially major environmental and human health impacts that would affect site workers and the community if contamination is not correctly managed. The known presence of significant contamination and contaminating processes over the entire project site provides a further imperative for the Detailed Site Investigation.

For most of the project footprint, particularly in 'Project Area 5', the EIS presents ad hoc and limited primary and secondary data on contamination and as such fails to address the contamination assessment requirements of the SEARs. The EIS states that that on many parts of the project site, contamination (hence suitability for the proposed development) is unknown due to lack of investigation. This is not a satisfactory conclusion.

The Site Audit Scheme for the entire project footprint is the only way to ensure the suitability of the site and provide adequate protection for site workers, the community and the environment. Alarming, the NSW Site Auditor Scheme has only been proposed for the Alexandria Landfill and 5/5 Canal Road sites. There are many other sites within the project's footprint considered to be highly contaminated. Some of these are confirmed, while others are suspected – for example, Camdenville Park, St Peters and properties on Campbell Street St Peters, which will be significantly disturbed during construction.

Detailed Site Investigations for these surrounding areas have been deferred despite the known high contamination risks and the likelihood that remediation will be required. In addition, these sites have not been considered for review as part of the Site Auditor Scheme despite the close proximity to sensitive receivers, including St Peters Primary School and residential areas. All sites in the project footprint should be assessed by Accredited Site Auditors to ensure contamination risks are managed in a way that minimises harm to site workers, the community and the environment.

As mentioned above, the EIS fails to address the SEARs and relevant Agency requirements for contamination. The SEARs states that the *“assessment must include details of proposed*

remediation measures and justification for the proposed measures in terms of the proposed final use of that land". For every one of these requirements related to contamination, the EIS has provided an inadequate assessment or has deferred the assessment. This is not acceptable – a complete and thorough investigation of contamination issues is needed to make informed decisions.

It would appear from the EIS's flood modelling that the project would increase flooding at a number of locations within the LGA, but not to a significant degree. The EIS flood map showing existing 100-year conditions correlates well with the findings of Council's *Cooks River Flood Study* (Parsons Brinkerhoff 2009). Notwithstanding, the flood modelling not look at more detailed flooding issue around Campbell and May Streets, St Peters which is of most concern.

It is noted in the EIS that flood modelling has been undertaken for Upper Wollie Creek, the Lower Cooks River and Alexandra Canal. The EIS's flooding assessment examines baseline conditions (without WestConnex) and projected development conditions (with WestConnex). The modelling works indicate that the flood levels would increase at a number of locations, both during construction and at operational stages.

Further assessment is needed during the detailed design stage to determine the scope of works for flooding impact management. At this stage, there will be requirements for the proponent to consult relevant councils to identify areas with current flooding issues and develop a flood management strategy to ensure flooding does not occur during construction or the operational stage of this project.

Council is currently in the process of developing the floodplain risk management plan for Marrickville Valley. Flood models previously used for the Lower Cooks River are currently being used to model part of the Marrickville Valley. Flood models for that catchment used by WDA for the EIS should be made available to Council to support the development of the Marrickville Valley floodplain risk management plan. Council also plans to shortly commence the flood assessment of the Alexandra Canal Catchment. Similarly, WDA's flood models developed for Alexandra Canal catchment should be made available to Council to assist with this assessment.

It is noted in the EIS that proposed flood management works of include the upgrading of the following facilities to a 100Year ARI standard:

- drainage pipes at the intersection of Campbell and May Streets, St Peters;
- wetland at Camdenville Park – from 6ML capacity currently to 17ML proposed; and
- supplementary detention basin with an outlet structure discharging to the downstream trunk drain (box culvert) at the south west corner of Bedwin Street, hydraulically connected to the wetland and acting as a controlled outlet structure;

The scope and configuration of these facilities would be finalised in the detailed design stage. It is expected that WDA would consult Marrickville Council during that finalisation stage of these assets.

Council has recently undertaken a masterplanning process for the upgrade of Camdenville Park. This includes a proposed a stormwater harvesting scheme to irrigate the oval within the park with treated water. Implementation of this scheme has been put on hold because of potentially conflicting flood management proposals for Camdenville Park associated with WestConnex. Council has considered alternative options for sourcing raw water for the scheme, including diversion of stormwater from nearby street catchments into a raw water storage tank at the north-west corner of the park.

Council is concerned that increasing the capacity of Camdenville Basin from 6ML to 17ML as proposed in the EIS may not be feasible, particularly given the widened road is consuming some of the park. 17ML storage would require something like a 6m deep hole, or 4 times the current depth.

Council's consultation processes for Camdenville Park identified making the Camdenville Basin into a wetland which was accessible to the public as a high priority. The proposed scheme of the wetland and drainage facilities, as outlined in the EIS, provides opportunities to rethink options being considered by Council for the stormwater harvesting scheme. The preliminary treated water from the constructed wetland at Camdenville Park proposed in the EIS could be used as raw water source for Council's proposed stormwater harvesting scheme.

There are also opportunities to use the upgraded wetland proposed in the EIS for treatment of stormwater from catchments on the NW side of Camdenville Park (Council and May Streets), which currently necessitate the diversion of stormwater from these catchments. The storage of the wetland will need to be increased from its proposed storage of 17ML, with the precise capacity confirmed through modelling. Modelling undertaken for the wetland should be made available to Council.

Council expects the wetland proposed in the EIS to be considered a matter of priority, as it does not have any dependencies with other proposed works. Early construction would allow Council to meet its timelines for works guided by the Camdenville Park masterplan and avoid constructing interim stormwater harvesting works.

Regarding groundwater, the EIS states that alteration to groundwater flow paths and tables are anticipated following construction of WestConnex tunnels, but the impact of these new tunnels on the health of large trees (dependent of groundwater) has not been adequately considered. There may also be impact on groundwater-dependent ecosystems in future when sections of existing concrete stormwater channels are rehabilitated into natural creek lines.

Regarding water quality and re-use, it is unacceptable that the EIS considers the receiving waters of the local river system to be degraded rather than a resource that can be improved over time with implementation of water sensitive urban design. The EIS states that drainage water from the proposed interchanges of the New M5 will be collected and disposed of directly to the nearby creeks and channels. In order to improve water quality, the EIS should have included options to treat the road runoff using bio-filters or other appropriate treatment measures prior to the discharge.

The existing riparian corridors of some of creeks crossing the new works are likely to be damaged. These adverse impacts should be addressed through the development of offset schemes for biodiversity corridors within these catchments.

The EIS states that the approximate volume of seepage water will be 1.7 ML/day (or around 20 L/second), which will be disposed of after treatment to the Cooks River. The proposed treatment plant will be located adjacent to Giovanni Brunetti Bridge (Marsh Street, Kyeemah). There are opportunities to reuse the treated water for residential and commercial purposes. This should be investigated through consultation with Council and other relevant stakeholders. This kind of re-use would contribute to Council's initiatives to replace potable water for non-potable purposes. It is understood from the EIS that treated seepage water could be used to meet water demands for tunnel and operational purposes such as cleaning, fire testing and landscaping.

The EIS states that the existing leachate treatment plant at the Alexandria landfill site will be upgraded and the treated water disposed of to adjacent sewers as trade waste. There may be opportunities for using the treated water at the St Peters interchange for cleaning and maintenance activities at the proposed operations control centre and ventilation facility, as well as in adjacent industrial premises. In all these instances, low grade water quality would be suitable. This should be investigated further as part of resource recovery and management by WDA. An estimation of the likely volume of leachate should be made to determine the opportunities for reuse, especially at the St Peters interchange site.

9. BIODIVERSITY

This section relates to EIS Chapter 21 – *Biodiversity*.

Council is of the view there are significant gaps and inadequacies in the EIS'S assessment of biodiversity impacts. There was no consultation by the proponent with local councils on local biodiversity strategies or other relevant plans. Nor was historical biodiversity data held by councils obtained, which is necessary to complete an effective and comprehensive assessment.

The EIS demonstrates a poor survey effort and assumptions about local biodiversity have been made with little data to back them up. There appears to be a lack of understanding of the importance of urban biodiversity throughout the EIS and cumulative impacts to all fauna, including Threatened Species, have not been adequately considered.

A significant quantity (15.9 ha) of vegetation is proposed to be removed, including 12.9 ha of trees, but the biodiversity impacts of this have not been adequately considered. Removed trees should be reused in revegetation works to create habitat/bank stabilisation, but there is no consideration of this in the EIS.

Council requests that the removal of trees required to implement the project be minimised, and that consideration be given to replanting large trees where possible. This will not only minimise visual/amenity impacts, but will contribute to improved air quality and reduced greenhouse emissions. Although new trees are proposed, these take some years to mature.

Marrickville Council and the City of Sydney commissioned the report *New M5 and St Peters Interchange Environmental Impact Statement – Review of Biodiversity Assessment* by Eco Logical Australia Pty Ltd - at **Attachment 4**. This report was commissioned due to initial concerns about the impact of the project on biodiversity in these two local government areas (LGAs). Following is a summary of the issues identified in the review.

The EIS's Biodiversity Assessment Report (BAR) was required to be prepared in accordance with the SEARs for the project, one of which specified that the BAR it must be undertaken in accordance with the NSW Office of Environment and Heritage's (OEH) *Framework for Biodiversity Assessment* (FBA), including further consideration of impacts on species, populations and ecological communities identified by the OEH.

The following issues are of concern in relation to the SEARs requirements, and how the FBA was applied in preparation of the BAR:

- The BAR focuses on threatened species, populations and ecological communities, as does the FBA. However, the introductory SEARs statement and *Threatened Species Conservation Act 1995* definition of biodiversity values suggests more consideration should have been given to biodiversity generally. This includes species and sites of local conservation significance within the City of Sydney and Marrickville LGAs, as well

as the numerous initiatives that have been implemented to conserve and enhance habitat for/at them.

- No consideration was given to ecological reports and data held by the City of Sydney or Marrickville Council in the preparation of the BAR. This includes each Council's respective biodiversity strategies and recent records of threatened and migratory species. This is despite sections of the FBA stating that such information can or should be considered.
- Important habitat features, including local wetlands and native vegetation in Sydney Park, Tempe Reserve, and Tempe Lands were not mapped or otherwise identified in the BAR. This is despite requirements in the FBA for such features to be mapped. Although outside of the development footprint, some local wetlands and native vegetation are immediately adjacent to the project and could be impacted. Identification of habitat features such as these through mapping would assist in identifying impacts and ensuring they are mitigated.
- It is not clear whether some of the abovementioned native vegetation should have been identified as Plant Community Types (PCTs) in accordance with the FBA. It appears to have been dismissed in the ESI as 'urban exotic and native' without being carefully considered.
- The list of candidate 'credit species' in the BAR does not include several such species that have recently been recorded in the vicinity, and/or for which suitable habitat (as described on the OEH Threatened Species Profile Database) is present within the development footprint. This is particularly at the Alexandria Landfill site, where clearing has already commenced and where there is adjoining industrial and vacant land. These species include the Eastern Bent-wing Bat, possibly the Southern Motes and the endangered inner-west population of the Long-nosed Bandicoot. It appears these species have been incorrectly excluded from further consideration in the application of the FBA. They should have been addressed further in the BAR in accordance with the requirements of Sections 6 to 12 of the FBA.
- The Long-nosed Bandicoot population was also identified by the OEH as requiring further consideration in accordance with Section 9.2 of the FBA, but no further consideration was given despite the SEARs stating that specific surveys were required.
- The discussion of impacts to biodiversity values and proposed mitigation in the BAR is considered insufficiently detailed, and cumulative impacts to biodiversity are not mentioned despite being a requirement of the FBA.

The threatened Eastern Bent-wing Bat and (possibly) the Southern Myotis, the endangered Long-nosed Bandicoot population, the endangered Coastal Saltmarsh community and migratory species (including the Great Egret, Cattle Egret, Sharp-tailed Sandpiper, Latham's Snipe and Rufous Fantail) have all recently been recorded in the City of Sydney and/or Marrickville LGA. However, as noted above, these species were not identified or adequately considered in the BAR despite potential for the project affect them.

The initiatives that have been implemented by the City of Sydney and Marrickville Councils and their respective community members to conserve and enhance habitats to promote biodiversity were not identified or otherwise considered in preparation of the BAR. These initiatives are guided by the City of Sydney's *Urban Ecology Strategic Action Plan* (UESAP) and Marrickville Council's *Biodiversity Strategy 2011-2021* (BS) and *Biodiversity Action Plan 2011-2015* (BAP). These documents outline 'priority' or 'target' species of local conservation significance in each LGA along with 'priority' habitat sites and actual or potential habitat linkages/connectivity between them, as well as between sites in adjoining LGAs.

Priority/target species identified in both LGAs include:

- frogs such as the threatened Green and Golden Bell Frog (GGBF) (addressed in the BAR), Dwarf Eastern Tree Frog and Peron's Tree Frog;
- reptiles such as the Eastern Blue-tongue, Bar-sided Skink and Eastern Water Skink;
- small birds such as the Superb Fairy Wren, New Holland Honeyeater, Red-browed Finch, Grey Fantail, Silvereye and rainforest migrants including the Rufous Fantail and Spectacled Monarch;
- freshwater wetland birds such as the Australasian Reed Warbler, Black-fronted Dotterel, Black-winged Stilt, Buff-banded Rail and Royal Spoonbill;
- microbats including Gould's Wattleed Bat and the threatened species previously mentioned;
- the Long-nosed Bandicoot; and
- the threatened Grey-headed Flying-fox (which is addressed in the BAR).

Despite the fact that most fauna habitat sites are highly modified and/or constructed, priority sites in the LGAs provide important habitat for the priority/target species in this highly urbanised context. These sites include:

- *Sydney Park*, where at least 62 native fauna species have been recorded since 2010, including priority species such as the Superb Fairy Wren, New Holland Honeyeater, White-plumed Honeyeater, Australasian Reed Warbler, Rufous Fantail, Black-winged Stilt, Black-fronted Dotterel, Royal Spoonbill, Eastern Blue-tongue and Dwarf Eastern Tree Frog.
- *Tempe Reserve*, incorporating Tempe Lands, and the lower stretch of Alexandra Canal. 93 native bird species have been recorded at this site in the past four years, including target species such as the Yellow Thornbill, White-browed Scrub Wren, Yellow-faced Honeyeater, White-plumed Honeyeater, White-naped Honeyeater, Spotted Pardalote, Brown Gerygone, Red-browed Finch, Silvereye, Superb Fairy-wren, Golden Whistler, Grey Fantail, and Australasian Reed Warbler. An additional eight target reptile and frog species have been recorded at this site, and there have been two recent confirmed records of the Short-beaked Echidna.

The dense weeds, mature trees, rock crevices, sandstone boulders, piles of debris and other ground-level features at the Alexandria Landfill site are also of habitat value for priority species. The landfill contributes to local habitat connectivity between Sydney Park and Tempe Reserve and other sites on the Cooks River. The banks of Alexandra Canal are also important with regard to local habitat connectivity, with the UESAP, BS and BAP all recognising their potential for future habitat enhancement.

The City of Sydney and Marrickville Councils are both members of the Cooks River Alliance, a partnership of Councils working together with communities for a healthy Cooks River catchment. There have been substantial efforts through the alliance to improve water quality and re-establish native vegetation along the river to promote biodiversity and restore local and regional habitat connectivity.

While not necessarily required by the FBA, it is disappointing that there is no recognition of any of the above in the BAR, despite the development footprint for the St Peters interchange and local road upgrades extending from Alexandra Canal across the Alexandria Landfill and into Sydney Park, with a construction compound and other works immediately adjacent to the park's habitats, and the location of Tempe Lands, Tempe Reserve and the Cooks River along the alignment of the proposed M5 tunnel.

While the potential impacts of the project are discussed in general terms in the BAR, it does not describe or address in detail all of the potential impacts of the project on the above species and sites during construction and operation – and, as previously mentioned, impacts to some threatened species are unknown. A more comprehensive discussion of all impacts, including site-specific details, should be included in the BAR.

This project is likely to exacerbate reductions in biodiversity values that have resulted from past development in the City of Sydney, Marrickville and surrounding LGAs, and there are likely to be further cumulative impacts from numerous current and proposed future developments in the area. Potential cumulative impacts to biodiversity are not identified or discussed in the BAR, despite being a requirement of the FBA, as previously mentioned.

Further assessment is necessary in relation to:

- threatened species, populations and communities, in accordance with Sections 6 to 12 of the FBA;
- priority/target species and priority sites in both the City of Sydney and Marrickville LGAs;
- similar species/sites that may be impacted in other LGAs; and
- any changes to the project that may arise during the detailed design phase.

The mitigation measures outlined in the BAR are not considered adequate in terms of ensuring minimisation of impacts to biodiversity values in the City of Sydney and Marrickville LGAs. The fact that impacts to threatened species, populations and communities and to priority/target species were not specified in the BAR suggests these species may be overlooked in the *Flora and Fauna Management Plan (FFMP)* that is to be prepared for the project. This is particularly since application of the *RMS Biodiversity Guidelines*, which as described in the BAR will form the basis of the FFMP, is partly reliant on information in the EIS documents.

More detailed measures are therefore recommended in addition to the BAR and FFMP along with (or instead of) others already specified. This is in addition to new mitigation measures identified through the recommended further assessment and measure identified for similar species/sites in other LGAs.

The BAR does not recognise or discuss any of the opportunities presented by the development to create new habitats through site landscaping. Whilst this might not be considered a requirement of the FBA, such opportunities have the potential to compensate for some of the adverse impacts and should therefore be included. Whilst it is accepted that the EIS does identify some opportunities in this regard, there are many more possibilities that should be explored and developed with reference to the City of Sydney's UESAP and Marrickville Council's BS and BAP in consultation with relevant council staff.

10. GREENHOUSE EMISSIONS, CLIMATE CHANGE & CUMULATIVE IMPACTS

This section relates to EIS Chapters 22 & 25, to 30 - *Greenhouse gas and Climate change & risk adaption, Hazard & risk, Cumulative impacts, Sustainability, Environmental risk analysis and Environmental management measures.*

Council is of the view that the EIS does not adequately address the impact of the project on climate change. The project should consider Australia's commitment to emissions reduction and Ecologically Sustainable Development as outlined in the *Protection of the Environment Administration Act 1991 (NSW)* and the *Environment Protection and Biodiversity Conservation Act 1999.*

The EIS should compare car and public transport greenhouse emissions and explain how the *NSW Long Term Transport Master Plan* objective to grow the proportion of travel by sustainable modes (predominantly walking, cycling and public transport) is being addressed. Although in the EIS it is claimed that the project will help reduce greenhouse emissions because it will facilitate the 'free flow' of motor vehicles, it does not account for predicted traffic increases and induced demand which is likely to lead to congestion in the longer-term. It also does not attempt to measure the carbon emissions from free flowing traffic versus slower moving congested traffic.

EIS Figure 22.4 should be verified each year in the annual sustainability report to confirm the assumption that total fuel use will be lower because of the reduction in stop-start traffic resulting in smooth flowing vehicle movement. There is no evidence provided to confirm the assumption that free flowing vehicles travelling at higher speeds consume less fuel than slower moving and congested traffic.

Although the 'WestConnex Sustainability Vision' is supported in principle, Council considers the scope of the sustainability assessment in the EIS to be lacking. The EIS outlines how the project has implemented the four principles of ecologically sustainable development (ESD) in design, construction and ongoing development. It also states that it "*supports a coordinated approach to the management of freight and passenger movements, as well as all modes of transport including road, rail, bus, ferries, light rail, cycling and walking*".

However, instead of considering the project as part of an integrated transport solution as it claims to do, the EIS considers only a predetermined motorway option. If the EIS was based on a genuine multi-modal assessment and a more detailed analysis of the sustainability costs/benefits of alternative options, the sustainability impacts of this project would have been duly assessed. At a more detailed level the EIS's sustainability target of 6% total energy from renewable sources is far too low and should be closer to other (higher) industry benchmarks.

Regarding cumulative impacts, it is noted from the TTM traffic report that construction of the Sydney Metro (rail) is planned to commence in 2017. A southern dive site is proposed for Marrickville and would be located north of Sydenham Station and south of Bedwin Road. This site would provide support for tunnelling operations and spoil removal. The impacts of truck movements associated with this activity in addition to the New M5 construction have not been assessed in the EIS. This additional truck traffic is most likely to remove spoil via Campbell Street east of the Princes Highway. It is thus essential that planned road upgrades for Campbell Street as well as the upgrade of the intersection of Campbell Street with the Princes Highway are completed prior to this additional traffic entering the system.

The project should also consider traffic impacts from the proposed expanded Marrickville Metro shopping centre at Victoria Road, Marrickville and the proposed Masters homemaker store at Edinburgh Road, Marrickville.

11. CONSTRUCTION WORK, RESOURCE USE & WASTE MINIMISATION

This section relates to EIS Chapters 6 & 24 - *Construction work* and *Resource use & waste minimisation*.

In addition to the Council staff comments below, construction traffic impacts are also outlined in Chapter 7 *Construction Phase* of the TTM report at **Attachment 2**.

It is noted from the EIS that the project will generate 3.2 million cubic metres of spoil. The EIS assumes that the most of the excavated spoil would be uncontaminated crushed sandstone and shale, classified as virgin excavated natural material. Council is concerned that no assessment has been undertaken to determine if there is sufficient capacity to receive this spoil at receiving locations.

Aside from the Alexandra Landfill closure plan, there is no detail about the management of asbestos and asbestos disposal sites. Asbestos, along with heavy metals and other hazardous materials may be mixed in with spoil. The EIS should include criteria for what will be tested, how and when it will be tested and where, e.g. residential and commercial areas, historic landfill sites.

A further concern is absence of information in the EIS about the method of demolition of homes and commercial buildings. Relocation and/or 'deconstruction' are the best options to maximise material recovery and minimise the potential impacts of asbestos and toxic materials. Council's comments on the relocation of heritage and the reuse of the heritage fabric of buildings is in Section 6 of this submission.

The EIS states that a formal spoil management plan will be developed and documented for the project before tunnelling works begin. It should be stated who will review the spoil management plan. Such a plan should be developed in consultation with relevant councils and the community, and approval for the plan received prior to project approval.

Spoil handling and haulage activities are planned to occur up to 24 hours per day, 7 days per week. According to information in the EIS, residents around the Canal Road construction compound and along the Princes Highway will be unduly affected by vehicle movements outside of standard construction hours. This includes concrete and shotcrete deliveries to these construction compounds. In the interests of residential amenity, 24/7 operation is not considered acceptable

Very large volumes of materials are involved, and the EIS suggests a weighting for local supply and sustainability outcomes, such as recycled content over raw material, in tendering for resources. These should be required as part of the project.

The EIS states that construction water requirements for the project will be 2,500 ML. This is a very large quantity, equivalent to 2.5 days of potable water demand in the whole of Sydney. Most of this water will be used for tunnelling, which would generate considerable amount of wastewater that also requires appropriate level of treatment prior to disposal.

The EIS states that 80% of construction water will be sourced from potable water mains, with other water sources considered, including 20% from rainwater and treated groundwater. Opportunities to include harvested/treated stormwater to further reduce potable water use must be investigated.

Council would like more information on the amount and quality of water to be stored in the proposed water storage basins required for construction. Council is concerned about contaminated water entering the catchment and possibility that these basins may breed mosquitoes.

Further general comments related to construction activities are as follows:

- a permit for heavy vehicles to access Council roads must be obtained via Council's permit process;
- street lighting levels must not be reduced in any circumstances due to the proposed construction work;

- a risk assessment of increased traffic and pedestrians movements due construction works must be undertaken prior to the commencement of works;
- all temporary or permanent traffic diversions are to be assessed in detail by Council;
- electricity used for the proposed works should be separated from any street lighting, so if there is an outage caused by WestConnex works it does not impact on street lighting; and
- Council supports the proposed two-way cycleway along northern side of Campbell Street, but notes it stops at the intersection of Campbell and May Streets, St Peters – see below in purple. Council requests links to all existing cycleway be provided, including a link across the Bedwin Road bridge.

Following are construction-related comments related to specific sections of the EIS.

Council has assessed EIS Section 6.1 *Construction strategy* and would like the following principles to be added:

- minimise loss of on-street parking;
- replace any existing facility that is removed during construction, e.g. provide temporary walk/cycle paths;
- avoid vehicle movements along local roads.
- protect existing nearby infrastructure from construction impacts such as excessive vibration, ground water movements due to tunnelling and buildings damage due to heavy vehicle movements;
- minimise night-time work to reduce disruptions from noise and vibration – particularly blasting, which may not be appropriate in areas within close proximity to dwellings;
- bus stop infrastructure works to include any signage, line marking, bus pads and footpath connection(s), and to comply with *Disability Discrimination Act* (DDA) requirements;
- Council to be notified of the need for the erection of any hoarding, fencing, cranes and road occupancies that may be required during construction. The applicant will be required to make application for such activities and comply with Council's conditions to undertake such construction activities;
- Council to be notified at least 10 weeks in advance of proposals to erect work zones, or to temporarily or fully close Council-managed roads, requiring consideration by Council's Traffic Committee and approval by Council. The applicant is to adhere to processes and practises for the regulation of traffic as required under RMS technical directions and the Roads Act, 1993. All costs associated with erection, maintenance and removal of this signage are to be met by the applicant;
- construction truck delivery and spoil removal routes are to be limited to the State Road network;
- applicant to provide details on the loss of on-street parking as a result of construction activities. Construction worker parking is not to occur on-street and the applicant is to provide and implement solutions to minimise the use (and loss) of on-street within the *Construction Management Plan* through the use of an off-street parking facility and a method of transfer between this facility and the work site. Solutions should be discussed with Council representatives prior to the commencement of the works; and
- applicant to liaise with other government agencies in relation to other projects occurring within the vicinity of the works, particularly the Sydney Metro Rail project to avoid overlapping activities which will impact on the flow of traffic.

Regarding EIS Section 6.2 *Construction programme*, Council would like more information on the proposed construction of local roads. Regarding EIS Section 6.3 *Construction footprint*, Table 6.3 should provide summary information for each LGA separately.

Regarding EIS Section 6.4 *Construction methodology*, Council seeks a commitment that should there be any damage to Council assets due to construction work, Council will be notified immediately and the damage will be immediately repaired by the contractor to Council standards at no cost to Council. A commitment is also sought regarding any permanent facilities, such as street furniture, built on Council land being to a standard consistent with Council's *Public Domain Strategy*.

In EIS Table 6.5 *Construction hardstands*, Council would like a provision included about retaining permeable surfaces wherever possible. In Section 6.5.1 *Site establishment and establishment of construction compounds*, a provision should be included that all ancillary structures such as fencing and hoardings adjacent to Council land must not increase risks to the public, such as reducing street lighting levels or provide 'hiding spots', and must not reduce accessibility along public footpaths.

Regarding EIS Section 6.5.2 *Construction traffic works*, any temporary change to traffic movements must be approved by Council. Should a temporary relocation of any Council asset during the construction be required, Council must be notified with a view to agreed management measures.

Regarding EIS Section 6.5.3 *Temporary construction compounds*, provision should be added that any obstructions, increased traffic congestion and/or damage to nearby local roads must be avoided, and residents near construction compounds are to be consulted about any proposed night-time noise and/or vibration impacts. For the Canal Road construction compound (C8), a provision should be added that any impacts on traffic, pedestrians and cyclists along Canal Road resulting from the compound's construction is to be reviewed by Council. The linking of proposed temporary roads to the existing road network is also to be reviewed by Council. Further, heavy vehicle movements in and out of all local industrial areas are to be maintained at all the time and adequate dust protection for demolition works must be provided.

Regarding EIS Section 6.5.5 *Other bulk earthworks*, it is not clear in the EIS what the impact on Council's assets will be from the construction of the structure beneath Campbell Road – clarification is requested.

Regarding EIS Section 6.6.1 *Changes to local roads*, Council considers the proposed road closures for a two-year period will significantly affect residents' regular movements – a detailed assessment of this issue is requested. Similarly, Council requests a detailed assessment of the impact of proposed reduced street parking as a result of the temporary or permanent road closures. Council can assist with these assessments.

Regarding EIS Section 6.6.3 *Changes to bus stops*, the following EIS proposal is noted: *"The bus stop on the southbound side of Canal Road along route 418 (Burwood to Bondi Junction) near the intersection of the Princes Highway would be permanently relocated further south along Canal Road to accommodate construction vehicles entering and exiting the Canal Road construction compound throughout construction of the project (refer to Section 6.9 for further details). The final location of this bus stop would be determined during detailed design and in consultation with Transport for NSW."*

The location of this shelter has not been finalised, and any proposed relocation should involve consultation with Council and Adele, not just TfNSW. Relocating the shelter too far south on Canal Road may result in the shelter being within the City of Sydney LGA, resulting

in loss of bus shelter advertising revenue for Marrickville Council. All costs associated with the relocation and restoration works should be borne by WestConnex. The new location is to be agreed upon by both Marrickville Council and Adshel.

Regarding EIS Section 6.7 *Construction workforce and work hours*, Council would like provisions added to provide workforce parking within the construction compound areas so the on street parking is not affected, and tunnel drilling spoil is to be transported during daytime hours following the night-time excavation - to minimise noise impacts on local residents.

Regarding EIS Section 6.8 *Plant and equipment*, Council would like a provision added to avoid using and transporting heavy vehicles on local roads. Regarding EIS Section 6.9 *Construction noise attenuation*, Council would like a provision added that adequate noise barriers be provided to a certified thickness and suitable barrier type. Regarding EIS Section 6.10 *Construction waste management*, Council would like a provision added to avoid transport of excess spoil via the local roads. Regarding EIS Section

Regarding EIS Section 6.11 *Construction resource use*, Council would like the following provisions added:

- ensure no water pressure drop and electrical power shortages affect the residents living near the compound area;
- use locally-sourced materials and purchase materials from local businesses where possible;
- employment of local labour force where possible;
- using recycled materials where possible;
- solar power to be used for on-site offices where possible; and
- water from the Sydney water detention tank to be used for construction purposes.