

5 Stakeholder and community consultation

This section discusses the consultation undertaken to date for the proposal and the consultation proposed for the future. The description contains the consultation strategy or approach used and the results of consulting with the community, the Aboriginal community and relevant government agencies and stakeholders. Consultation documentation is provided in Appendix G.

5.1 Consultation strategy

Mail outs, letterbox drops, shopping centre displays and information sessions for the proposal have been undertaken since July 2010 with local residents, community members and government agencies to:

- Inform community and stakeholders of the proposal.
- Work with affected community members to manage access for detailed studies such as geotechnical, noise and traffic.
- Engage with stakeholders and the community and seek inputs into the proposed concept design and this REF.
- Develop sound relationships with stakeholders and communities to enable RMS and contractors to continue consultation during delivery phases of proposal.

RMS has and would continue to undertake community and stakeholder consultation for the purpose of the proposal. This REF would be placed on public display and comments from the community and other stakeholders would be invited. All submissions would be considered in finalising the concept design and during the detailed design.

5.2 Community involvement

5.2.1 Initial consultation

Stakeholders and residents were sent a community update newsletter outlining the proposed access strategy for the upgrade of The Northern Road in July 2010. The community update invited comments on the proposed access strategy. Comments closed on Friday 27 August 2010. All community updates for the proposal to date are provided in Appendix G.

All identified stakeholders were sent copies of the community update and 6,000 copies of the community update were letterboxed dropped to households and businesses in the Camden, Bringelly, Harrington Park, Oran Park, Badgerys Creek, Kirkham, Narellan, and Luddenham areas.

The community update provided information on the access arrangements that would be implemented during the progressive widening of The Northern Road from a two-lane road to a four-lane divided road, between The Old Northern Road, Narellan and Mersey Road, Bringelly.

Information sessions were held at the Bringelly Community Centre on 7 August 2010 and Narellan Library on 14 August 2010. Advertisements were published in the South Western Rural Advertiser, Macarthur Chronicle and Liverpool Leader in the lead up

to the information sessions inviting the community to attend the two sessions and submit written comments on the proposed access strategy.

Representatives from the then Department of Planning (now DP&I) attended the first information session on 7 August 2010 and Sydney Water attended the following information session on 14 August 2010. Both agencies answered questions about precinct planning and the installation of current and future water supplies to the developing precincts within the South West Growth Centre.

Information outlining the proposed access strategy was displayed at the Narellan Library and Narellan Motor Registry between 29 July and 27 August 2010. Proposal information was also made available on RMS website (then Roads and Traffic Authority). The website was visited by 304 people between 1 July 2010 and 31 August 2010 and there were 94 downloads of the July 2010 community update.

A number of issues and concerns were raised by the community during the initial consultation. Community feedback included concern about the timeframe of the upgrade, road closures and some locations of the link roads. There were also specific concerns raised about intersection locations, impacts on local roads, interim arrangements, location and number of traffic lights, property access, impacts on heritage items, operational and construction noise, safety of the road, land acquisition and bicycle facilities.

All comments and suggestions were considered and as a result some of these were incorporated into the preliminary concept design.

5.2.2 Concept design consultation

In order to progress the studies required as part of the concept design development and REF, property owners along the proposal were contacted to formally request property access. Property access forms were provided with letters requesting the access, and phone calls were made to each property owner to collect the signed consent access forms. While every effort was made to contact the property owners, there were three property owners that could not be contacted. Phone calls were also made to residents and owners prior to onsite investigations taking place.

A community update outlining the preliminary concept design for the proposed widening of The Northern Road from a two-lane road to a four-lane divided road between the Old Northern Road, Narellan and Mersey Road Bringelly was distributed to 4,000 households in November 2011. The community update invited comments on the preliminary concept design. Comments closed on Friday 16 December 2011.

Advertising was placed in the Liverpool Leader on the 23 November and the Southern Western Rural Advertiser and Macarthur Chronicle on the 22 November 2011. The advertisements invited the community to attend the two staffed shopping centre displays or the community information session. Written comments were invited on the preliminary concept design. Stakeholders were also encouraged to contact the RMS project team throughout the entire concept design process via a free call 1800 number (1800 257 484) and project email (TheNorthernRoadNSW@globalskm.com).

Two staffed shopping centre displays outlining the preliminary concept design were held at Harrington Park Plaza on 1 and 3 December 2011. Stakeholders were encouraged to review the preliminary concept design and submit their feedback.

An information session was also held on the 10 December 2011 at the Leppington

Progress Hall, to further discuss the preliminary concept design with the community and stakeholders. Members from the project team and RMS property department were in attendance to provide property owners and other stakeholders more detail about the design. Table 5-1 summarises issues raised by the community, and how they were addressed in the concept design.

Table 5-1 Issues raised by the community

Issues raised	Response	Where addressed in REF
<p>Timing:</p> <ul style="list-style-type: none"> The majority of community enquiries asked when the upgrade of The Northern Road would occur. 	<p>The Northern Road would be upgraded in sections in conjunction with precinct development in the South West Growth Centre. This would largely be dependent on the future land releases and the allocation of funding by the Government, and developers of the South West Growth Centre.</p>	<p>Sections 3.3.1</p>
<p>Property impacts:</p> <ul style="list-style-type: none"> The majority of property owner enquiries were about the extent and timeframe of property acquisitions. Some landowners were concerned that the proposal would affect the value of their property and their opportunity to subdivide. These owners asked if compensation would be paid in these instances. Queries were also received about who would pay compensation if property was damaged during construction. 	<p>Section 3.6 and Appendix C provide details of full and partial property acquisition in relation to the concept design. However, the amount of land required by the proposal is indicative and subject to change as comments received during public displays are considered. During the detailed design phase, modifications to the road design may consequently affect the extent of property acquisition required for the proposal may occur.</p> <p>RMS normally purchases land for a project immediately prior to when it is required. All land acquisitions would be conducted in accordance with the RMS Land Acquisition Policy and compensation would be identified in accordance with the <i>Land Acquisition (Just Terms) Compensation Act 1991</i>. The Act guarantees that, if acquisition is required the amount of compensation would not be less than the market value unaffected by the proposal. Other matters that would be considered in relation to compensation include, among others, any special value the property holds, any increase or decrease in the value of adjoining or severed land (as affected by the road proposal).</p> <p>RMS would undertake dilapidation assessments in accordance with standard RMS procedure prior to the commencement of construction. However, structural</p>	<p>Section 3.6 and Appendix C</p> <p>Section 6.9</p> <p>Section 6.5</p>

Issues raised	Response	Where addressed in REF
	damage from vibration as a result of any works was considered unlikely.	
<p>Access:</p> <ul style="list-style-type: none"> Property owners believe left-in/left-out only access would devalue their property and asked if compensation will be paid. A local businessman asked how large delivery trucks would access his properties with left in/left out only access if they arrive from the north. 	<p>Compensation would only be provided for direct property acquisition. RMS acknowledges the loss of right turn access from some properties in order to provide a safe driving environment.</p> <p>U-turn facilities have been proposed at selected intersections to allow vehicles to turn around and access the opposite carriageway. Temporary U-turn facilities would also be provided during construction. The design also incorporates capacity for B-double vehicles.</p>	<p>Section 6.8</p> <p>Section 3.1, section 6.1 and section 6.9.3.</p>
<p>Noise:</p> <ul style="list-style-type: none"> Residents from Harrington Park asked if signs could be installed requesting trucks to reduce the use of compression braking in that area. Concerns were raised from local residents about additional noise caused by extra traffic on The Northern Road. Residents also asked if noise walls would be provided as part of the upgrade and if compensation would be paid to residents for noise proofing. Concern raised about the existing noise generated from the bridge over Thompsons Creek. This is specifically in relation to the noise generated when heavy vehicles pass over the asphalt lip between the road surface and the bridge surface. Additional planting and landscaping 	<p>No signage to minimise compression braking is proposed at this stage, as signage is not found to provide any noise reduction in similar locations.</p> <p>This assessment considers predicted increases in traffic numbers. Traffic noise levels as a result of the proposal would generally rise by about 1.7 dB(A) and at several locations close to the existing alignment the increase is predicted to be about 6 dB(A). This assessment considers predicted increases in traffic numbers.</p> <p>Further investigation of all feasible and reasonable noise mitigation options, including noise walls, would be considered during detailed design for the affected receivers to reduce traffic noise levels at residences. Affected landholders would be consulted about their individual needs as part of the further investigations. Compensation would only be provided for direct property acquisition.</p> <p>The Northern Road would be regraded as part of the</p>	<p>Not applicable</p> <p>Section 6.5</p> <p>Section 6.5</p> <p>Section 6.5</p>

Issues raised	Response	Where addressed in REF
<p>was requested to minimise noise levels.</p>	<p>proposal to remove road level differences at the Thompsons Creek bridge. The noise issue would be considered during detailed design.</p> <p>While a landscape masterplan was developed for the proposal, this was not developed with regard to mitigation of noise impacts. Although dense vegetation screen planting will have visual and privacy benefits, it provides only minor acoustic attenuation and would not achieve the necessary noise mitigation.</p>	<p>Section 6.10</p>
<p>Pollution:</p> <ul style="list-style-type: none"> Property owners were concerned with the extra air pollution from trucks as they stop and take off from the new traffic lights. 	<p>Air quality modelling predicted that air pollution as a result of the operation of the proposal would be well below OEH goals. This assessment considers predicted increases in traffic numbers, types of vehicles and traffic flow.</p> <p>RMS is working on a range of cleaner air initiatives to improve vehicle and fuel standards, reduce vehicle emissions and to promote greener transport alternatives. Refer to the RMS website for further information www.rms.nsw.gov.au/roadprojects.</p>	<p>Section 6.11</p>
<p>Flooding:</p> <ul style="list-style-type: none"> If surrounding areas were flooded what would happen to The Northern Road Would the proposal cause an increase in flooding on properties. 	<p>Drainage was designed to achieve 100 year Average Recurrence Interval (ARI) flood immunity for the proposal (that is a flood that, on average, would occur once in 100 years).</p> <p>The hydraulic modelling found that all proposed culvert upgrades would result in lower upstream water levels for the 100 year ARI event when blockage was not considered. Therefore, The Northern Road would not be expected to become inundated if a 1 in 100 year flood was to occur.</p> <p>The assessment also identified that peak flows would</p>	<p>Section 3.2.1 and section 6.7</p>

Issues raised	Response	Where addressed in REF
	<p>change at the downstream culvert boundaries as a result of the proposal. Where an increase in peak flow rate at drainage outlets adjacent to property boundaries was predicted, it was managed by providing suitably sized drainage has been included in the concept design to cater for the 100 year ARI event (with climate change considered).</p> <p>The hydrological assessment also assessed potential impacts to regional flooding. Although, the cross drainage has been designed to convey the 100 year ARI events, in larger events (such as an extreme flooding event being the probable maximum flood (PMF)) water would pond against the road until it overtops or overflow occurs into adjacent catchments. Where water impounds against an embankment there would be a risk of embankment failure and a rapid release of water. The hydrologic modelling indicated that areas of PMF risk would be at bridge locations and waterway crossings where the proposed road embankment would be at least two to three metres above the natural ground level. Measures were included in the concept design to mitigate this risk:</p> <ul style="list-style-type: none"> • Raising the existing Narellan Creek bridge deck level to meet the 100 year ARI flood level requirement and the new north bound bridge would be constructed to satisfy the flood immunity requirements. • Constructing bridge sized culverts at Lowes Creek that would direct flows through the main channel and floodplain culverts, reducing the upstream flood levels in a 100 year ARI event. • Undertaking some minor excavation works in the creek channel at Thompsons Creek bridge in order to maintain the bridge waterway area and minimise 	

Issues raised	Response	Where addressed in REF
	potential to increase the flood levels on the upstream.	
<p>Traffic:</p> <ul style="list-style-type: none"> • Majority of residents questioned the number of traffic lights in the proposal as this would increase travel times. • Several residents also questioned why traffic lights were proposed instead of roundabouts and suggested the roundabouts at Fairwater Drive and Hillside Drive as an example. • Other residents requested no roundabouts be used in the upgrade. • Several requests were received from the community to provide grade separated interchanges (flyovers) at all intersections. 	<p>Traffic lights have been proposed at all of the main intersections. The spacing of the signalised intersections would provide sufficient access for future development whilst maintaining the performance of The Northern Road as a principal arterial road. Traffic signals would be required to manage access to The Northern Road from future development areas and provide safe operation of the intersections as well as safe crossing opportunities for pedestrians and cyclists.</p> <p>The number of vehicles using The Northern Road is expected to increase to three times the current volume in 20 years and would continue to increase after that time. The proposal would have a signposted speed limit of 80 km/h. Roundabouts are not considered a suitable intersection treatment as they would not perform efficiently under these circumstances. Traffic lights would generally be coordinated to favour the greater traffic flows on The Northern Road.</p> <p>Grade separated interchanges are typically not cost effective unless the side road carries very large traffic volumes. RMS has made provision in the concept design for a potential future overpass at The Northern Road intersection with Bringelly Road.</p>	Section 6.1
<p>Road design:</p> <ul style="list-style-type: none"> • Several property owners questioned if the intersection location would change. • Several residents and property owners asked why Cobbitty Road east and Cobbitty Road west were not aligned 	It would be unlikely that the proposed intersection locations would change substantially from the current concept design. The intersection locations, however, would be refined during the detailed design.	Chapter 3 and section 6.7

Issues raised	Response	Where addressed in REF
<p>and asked why the intersections couldn't be left as is.</p> <ul style="list-style-type: none"> Residents were also concerned about the arrangements for residents from Cobbitty Road (west) to go to Cobbitty Road (east) (Oran Park Drive). A question was received asking why the upgrade wasn't extended to include the current sharp turns at Badgerys Creek tributaries as there have been a number of crashes at this location. 	<p>Due to environmental constraints, Cobbitty Road (east) (Oran Park Drive) and Cobbitty Road (west) intersections could not be aligned to provide a four-way intersection with The Northern Road. Given the level of traffic anticipated on The Northern Road, it was considered unsafe to maintain the intersections in their current arrangements. Camden Council is responsible for Cobbitty Road and the proposed arrangement is consistent with its plans for the road prepared as part of the Oran Park development.</p> <p>Traffic from Cobbitty Road (west) would use Oran Park Link Road 1 (Peter Brock Drive) to access Cobbitty Road (east) (Oran Park Drive). The construction of Oran Park Link Road 1 (Peter Brock Drive) is proposed within the next two years as part of the Oran Park development. As the timing for the construction of Cobbitty Road intersections is unknown, the alternate arrangement for the right turn movement into Cobbitty Road (east) (Oran Park Drive) would be completed before Cobbitty Road (east) (Oran Park Drive) becomes a left in - left out intersection.</p> <p>The length of The Northern Road upgrade was established to generally cover the area for the South West Growth Centre. As detailed in section 6.7.1, the proposal does not cross the Badgerys Creek main channel.</p>	
<p>Safety:</p> <ul style="list-style-type: none"> Concerns were raised about the existing "kiss and ride" facility on Greendale Road outside Bringelly Public School becoming a safety issue due to the significant increase in traffic from properties on The Northern Road between Belmore Road and Badgerys 	<p>After considering the preliminary design of Bringelly Road/Greendale Road intersection, the size of the intersection was reduced as far as possible and moved seven metres to the west of the original alignment to minimise impacts on the school.</p> <p>A road safety audit was conducted on the proposal prior to completion of the concept design. Where potential road</p>	<p>Section 2.6</p> <p>Not applicable</p>

Issues raised	Response	Where addressed in REF
Creek Road.	safety issues were identified in the audit, appropriate mitigation measures were incorporated into the concept design.	
<p>Land use:</p> <ul style="list-style-type: none"> Local residents questioned if land use classifications would change as a result of the proposed road upgrade. 	<p>The proposal would cater for the planned development of the South West Growth Centre. Land use classifications for the proposal would change from rural residential, agricultural or public recreation to a road transport corridor. Land use adjacent to the proposal would not change as a result of the proposal. The DP&I is responsible for precinct planning and associated land use changes in the South West Growth Centre.</p>	Section 6.8

The Community Consultation Report (SKM 2012a) documents community consultation undertaken for the preliminary concept design in November and December 2011. This report is included in Appendix G.

During 2011, the RMS project team met with a number of residents and landholders wishing to develop property in the area. Meetings were also held with landholders concerned with land acquisition and property value.

5.3 Aboriginal community involvement

Aboriginal consultation was conducted in accordance with Stages 2 and 3 of the RMS Procedure for Aboriginal Cultural Heritage Consultation and Investigation (PACHCI) and the OEH *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010*. This consultation is summarised below and in Appendix H.

No Native Title claims have been granted or registered for consideration. The proposal includes sections within two Local Aboriginal Land Council (LALC) boundaries; Gandangara LALC to the north of Bringelly Road, and Tharawal LALC to the south.

In accordance with Stage 2 of the PACHCI, the field survey undertaken as part of the Aboriginal Archaeological Survey Report completed by Artefact Heritage Services (2012a) was carried out in August, September and November 2011 with representatives of the Gandangara and Tharawal LALCs. There were no written comments received from the LALCs consulted as part of the Stage 2 assessment.

A Cultural Heritage Assessment Report (CHAR) (refer to Appendix H) was prepared and led the formal Stage 3 consultation process, which included:

- An advertisement published in local and indigenous media seeking expressions of interest from Aboriginal stakeholders.
- Letters to agencies seeking information of knowledge holders.
- Compilation of a registered stakeholder list.
- Continuing consultation with the local Aboriginal community.

Registered stakeholders for the proposal include:

- Cubbitch Barta Native Title Claimants.
- Darug Land Observations (DLO).
- Darug Custodial Aboriginal Corporation (DCAC).
- Darug Tribal Aboriginal Corporation (DTAC).
- Darug Aboriginal Cultural Heritage Assessments (DACHA).
- Tharawal LALC.
- Gandangara LALC.
- Darug Aboriginal Land Care Inc.
- Gunjeewong Cultural heritage Aboriginal Corporation.
- Peter Falk consultancy.
- Yarrawalk.

A copy of the draft CHAR was provided to registered stakeholder groups for comment at an Aboriginal Focus Group (AFG) meeting held on the 24 May 2012. Discussions at the AFG were reflected in the final CHAR and an Aboriginal cultural heritage management policy for the proposal was developed in consultation with the Aboriginal stakeholder. Since the finalisation of the CHAR an additional Aboriginal

heritage item was identified. A letter detailing this finding, the potential impact and the proposed management and mitigation measure for this item was sent to the Aboriginal stakeholders in September 2012. All comments received from the Aboriginal stakeholders to date indicate acceptance of the proposed management and mitigation measures proposed for this Aboriginal cultural heritage item.

5.4 ISEPP consultation

Clause 13 of the ISEPP requires consultation with council where development would impact on council-related infrastructure or services. Porrende Street, Fairwater Drive, Hillside Drive, Cobbitty Road, Carrington Road, Belmore Road, Robinson Road, Loftus Road, Bringelly Road, Greendale Road, Thames Road, Solway Road, Lea Road, Dart Road, Badgerys Creek Road, Derwent Road, Avon Road and Mersey Road are all roads for which a council is the Roads Authority under the *Roads Act 1993*. Works that would be undertaken at these intersections require consultation with Camden and Liverpool City councils.

Clause 14 of the ISEPP requires consultation with council for a development that would have an impact that is not minor or inconsequential on a local heritage item (other than a local heritage item that is also a State heritage item). As discussed in section 6.4 the proposal would be located within the curtilages of the two heritage items listed under the Camden LEP, and within the curtilage of a heritage item listed under the Liverpool LEP. Works that would affect these listed items require consultation with the relevant council under the ISEPP. Consultation letters were forwarded to council in December 2011. A response was received from Liverpool City Council in December 2012 and Camden Council in October 2012.

Clause 15 of the ISEPP states that a public authority must not carry out a development on flood-labile land that would change flood patterns other than to a minor extent unless the authority has given written notice of the intention to carry out the development to the relevant council. As discussed in section 6.7, the proposal would be located within flood-labile land, but would not significantly impact the localised flooding.

Clause 16 of the ISEPP states that a consent authority must not carry out any of the following development without giving written notice to the specified authority and taken their responses into consideration:

- (a) development adjacent to land reserved under the National Parks and Wildlife Act 1974—the Office of Environment and Heritage.*
- (b) development adjacent to a marine park declared under the Marine Parks Act 1997—the Marine Parks Authority.*
- (c) development adjacent to an aquatic reserve declared under the Fisheries Management Act 1994—the Office of Environment and Heritage.*
- (d) development in the foreshore area within the meaning of the Sydney Harbour Foreshore Authority Act 1998—the Sydney Harbour Foreshore Authority.*
- (e) development comprising a fixed or floating structure in or over navigable waters—the Roads and Maritime Services (maritime branch).*
- (f) development for the purposes of an educational establishment, health services facility, correctional centre or group home, or for residential purposes, in an area that is bush fire prone land (as defined by the Act)—the NSW Rural Fire Service.*

No part of the proposal would be located in land reserved under the *National Parks and Wildlife Act 1974*, adjacent to a declared marine park or declared aquatic reserve or foreshore area and would not involve development over navigable waters or for the purposes of an educational establishment, health services facility, correctional centre or group home, or for residential purposes. As such, consultation with a specified public authority is not required under Clause 16 for this proposal.

Consultation with Liverpool City Council and Camden Council for the purposes of Clause 13, 14 and 15 of ISEPP was undertaken on 13 December 2011. A response was received from Liverpool City Council in December 2011 and Camden Council in October 2012. Both councils have also made comments during meetings in March 2010 to discuss the access strategy and via telephone in November 2011 prior to display of the preliminary concept design have been included in table 5-2 below. Both councils were also represented at the risk workshop held on 30 August 2011.

5.5 Growth Centres SEPP

Consultation has been initiated with DP&I and consultation will continue to be undertaken, as required by clause 18 of the Growth Centre for the proposal. As outlined in section 5.6 below, consultation has been undertaken with the DP&I as follows:

- Meetings were held in 2010 prior to the release of the access strategy.
- DP&I representatives attended the proposal risk workshop in August 2011.
- A letter was sent to DP&I in November 2011 outlining the preliminary concept design.
- Formal response from DP&I was received in December 2012.

5.6 Government agency and stakeholder involvement

Meetings were held in 2010 with stakeholders from Camden Council, Liverpool City Council and the former Department of Planning (now DP&I). The aim of these meetings were to brief these government agencies on the preliminary concept design for the upgrade of The Northern Road between The Old Northern Road and Mersey Road, Bringelly.

On the 30 August 2011, members of the RMS project team and stakeholders including representatives from Camden Council, Liverpool City Council and DP&I attended the project risk workshop. The aim of the workshop was to consider the potential risks and issues of the proposal so as to develop options to avoid them and where this was not possible, mitigate and manage them.

In November 2011, letters outlining the preliminary concept design were sent to 22 stakeholders including government bodies and utilities providers. The letters sought comments about the proposal. The comments received are provided in the consultation report included in Appendix G and summarised in table 5.2.

The following stakeholders were consulted:

- Environment Protection Authority (EPA).
- Office of Environment and Heritage (OEH).
- NSW Office of Water (NOW).
- Hawkesbury-Nepean Catchment Management Authority.
- Hawkesbury-Nepean Catchment Management Authority.
- Endeavour Energy.

- Heritage Branch (OEH).
- NSW Department of Trade and Investment, Regional Infrastructure and Services (Division of Primary Industries).
- Sydney Water Corporation.
- Sydney Catchment Authority.
- NSW Rural Fire Service.
- NSW Department of Planning & Infrastructure.
- Transport Construction Authority.
- Ambulance Service of NSW (Western Sydney Division).
- NSW Police Force.
- Western Sydney Buses (State Transit Authority).
- NSW Department of Education and Communities.
- Jemena Energy.
- Optus.
- Telstra.
- TransGrid.
- Bringelly Public School.
- Macarthur Anglican School.
- Boral.
- Commonwealth Department of Infrastructure, Transport, Regional Development.
- Commonwealth Department of Sustainability, Environment, Water, Population and Communities.
- Commonwealth Department of Education, Employment and Workforce Relations.

Table 5-2 Issues raised from stakeholder consultation

Stakeholder	Issues raised	Response	Where addressed in REF
Commonwealth Department of Infrastructure and Transport	<ul style="list-style-type: none"> Further consultation with the Department regarding the specific details of the sediment basin proposed on Australian Government owned land, should it remain part of the final road design alignment. 	<p>The temporary sedimentation basin was moved about 100 metres north and 50 metres west to avoid impacts to Commonwealth land.</p>	<p>Section 3.2 and Appendix F</p>
Camden Council	<ul style="list-style-type: none"> Porrende Street, Narellan, is an approved 25m B-Double route and the intersection should be designed to accommodate all turning movements in and out. Council has granted approval for a development on the western side of the Northern Road accessing the Northern Road from a fourth leg off the existing roundabout at Hillside Drive, Harrington Park. This development is likely to progress prior to this proposal. On Greendale Road, Bringelly, there is significant traffic associated with Bringelly Public School (on the northern side within Liverpool LGA). The intersection treatment that will impact on existing parking, bus stops and a recently constructed crossing facility need to be considered. All these aspects 	<p>The proposal has been designed to cater for B-double use. All turning movements from and to Porrende Street intersection has been design to cater for B-doubles.</p> <p>RMS has consulted with the proponent of the Hillside Drive development to coordinate the concept design in this area and to minimise potential impacts to the development. Additionally the proposal would tie in with the approved design.</p> <p>The traffic, pedestrian, bus stop and school requirements at the Bringelly Road / Greendale Road intersection have been considered throughout the development of the concept design. The proposed U-turn facility has been moved to the southern side of Greendale Road in response to the community comments. The recently constructed crossing facility is approximately 50 metres east of the proposed U-turn facility. Consultation with Bringelly Public School has been undertaken. Further consultation with Bringelly Public School would occur during detailed design.</p>	<p>Section 6.1, section 6.4 and section 6.7.</p>

Stakeholder	Issues raised	Response	Where addressed in REF
	<p>will need to be addressed as the design progresses.</p> <ul style="list-style-type: none"> • Clarification of the shorter term operation of the left-in, left-out of Loftus Road, Carrington Road and Belmore Road, ie by turning areas on stub ends on new signal intersections within a reasonable distance, as has been designed on Camden Valley Way. • Orielton homestead at 179 The Northern Rd, Narellan (that is a State and local heritage item under the Camden LEP) - Lot 101 DP 1003658. • Denbigh homestead at 421A The Northern Rd, Cobbitty (that is a state Heritage item identified in the SW Growth Centres SEPP) - Lot 2001 DP 1139483. • The Northern Rd Cultural Landscape that is identified in Camden DCP 2011, Chapter B3. • The above are identified heritage items. There may also be other structures/ items which have European and Aboriginal heritage significance along the length of the road that need to be identified and assessed. 	<p>Residents on Loftus Road, Carrington Road and Belmore Road would be able to use the U-turn facility at Belmore Road. This would increase travel by about one kilometre. This U-turn facility is currently proposed as a temporary facility until other access arrangements are in place.</p> <p>The non-Aboriginal cultural heritage assessment undertaken for the proposal was prepared in accordance with NSW Heritage Manual This included an assessment of impacts to Orielton and Denbigh and other heritage items within the proposal and study area.</p>	

Stakeholder	Issues raised	Response	Where addressed in REF
Department of Education and Communities	<ul style="list-style-type: none"> The school communities impacted by the proposed upgrade should be consulted directly. 	Bringelly Public School and Macarthur Anglican School were consulted about the proposal.	Section 5.5
Department of Planning and Infrastructure	<ul style="list-style-type: none"> The Growth Centres Biodiversity Certification Order would need to be complied with, especially at the Thompsons Creek crossing (including two spill basins) which is non-certified and also contains some Existing Native Vegetation (ENV). 	The proposal would comply with The Growth Centres Biodiversity Certification Order.	Section 6.2
	<ul style="list-style-type: none"> An assessment of significance ('7-part test') should be carried out in accordance with the matters under Section 5A of the EP&A Act to decide whether there is likely to be a significant effect on threatened species, populations or ecological communities and habitats, on non-certified land. An SIS would need to be prepared for non-certified land for activities that "is likely to significantly affect threatened species, populations or ecological communities, or their habitats". 	Assessments of significance of potential impacts on threatened species, populations or ecological communities and habitats located on non-certified land and on land outside of the Growth Centre were completed. The assessments found that no significant impacts are likely to occur and a species impact statement is therefore not required.	Section 6.2.
	<ul style="list-style-type: none"> The Department would like the opportunity to review the draft REF before it is finalised and is available to meet to discuss the draft REF and how it addresses 	The REF has been placed on public display and submissions report would be prepared to address comments received during this consultation period. RMS would also consult with the DP&I during the public display period.	Executive summary and section 5.7.

Stakeholder	Issues raised	Response	Where addressed in REF
	the Growth Centres Biodiversity Certification Order.		
Department of Primary Industries	<ul style="list-style-type: none"> Requested compensation for loss of commercial agricultural production and removing permanently production areas be considered for proposed mitigation. 	<p>During operation the proposal would result in a minor reduction of agricultural land.</p> <p>All land acquisitions would be conducted in accordance with the RMS's Land Acquisition Policy and compensation would be identified in accordance with the <i>Land Acquisition (Just Terms) Compensation Act 1991</i>.</p>	Section 3.6.
	<ul style="list-style-type: none"> DPI-Fisheries recommend that waterway crossings are designed according to supplied Departmental documents. 	Waterway crossing design has considered relevant standards and guidelines documentation. As such the design of waterway crossings would be in line with guidelines to maintain adequate fish passage according to fish habitat (ie Fairfull and Witheridge 2003).	Section 3.2.1.
	<ul style="list-style-type: none"> RMS will need to formally notify DPI-Fisheries under Section 199 of the Fisheries Management (FM) Act 1994 of dredging activities within the banks of creeks considered to be Key Fish Habitat. Alternatively, RMS may prefer that construction companies obtain a dredging and reclamation permit under Section 201 of the FM Act under the company name. 	The proposal would involve dredging and reclamation work in areas of Key Fish Habitat and therefore under section 199 of the FM Act notification would be given to the Minister for Regional Infrastructure and Services jointly with the Minister for Primary Industries and any matters raised by the Minister would be considered within 28 days after the giving of the notice.	Section 4.3.6.

Stakeholder	Issues raised	Response	Where addressed in REF
	<ul style="list-style-type: none"> Erosion and sediment control measures should be implemented during construction and that, where possible, fish passage within Key Fish Habitat is not blocked during construction. 	<p>This REF assesses the potential impacts of the proposal on soils and provides safeguards for erosion and sediment control during construction.</p> <p>Where possible, construction would be undertaken such that fish passage is maintained. However, should blockage of culverts be required a permit to temporarily block fish passage would be obtained.</p>	Section 6.6 and section 6.2.
	<ul style="list-style-type: none"> Bringelly Brickworks is in the immediate vicinity of the proposed upgrade works and should be consulted. 	Boral, the owner of Bringelly Brickworks was consulted as part of this REF. A formal response has not been received to date.	Section 5.6.
Endeavour Energy	<ul style="list-style-type: none"> Requested continued consultation with both the Network Environmental Assessment Branch and the Transmission Mains Branch of Endeavour Energy in relation to the establishment of the new overhead feeder and the road upgrade. 	Endeavour Energy would continue to be consulted during the development and delivery of the proposal.	Section 5.7.
Environment Protection Authority (previously OEH)	<ul style="list-style-type: none"> Recommends that the conservation area in Harrington Park Stage 2 is avoided. Include maps showing land zoned as E2 <i>Environment Conservation</i> in Camden LEP. 	The proposal has been designed within the road corridor, where possible. However there would be some areas where drainage is required on the land zoned as E2 Environmental Conservation in the Harrington Park Stage 2 development. Figure 6-13 shows the land use zones within and adjacent to the proposal.	Section 6.4 and section 6.8.

Stakeholder	Issues raised	Response	Where addressed in REF
	<ul style="list-style-type: none"> • Works should avoid impacting existing native vegetation in the non-certified area. Should any areas of existing native vegetation within non-certified areas be impacted by the works, the REF should identify and qualify any impacts on existing native vegetation and outline offset arrangements in accordance with relevant biodiversity measures. Offsets are to be secured prior to determination. 	<p>Works have avoided impacting existing native vegetation in non-certified areas, where possible. About 0.1 hectares of native vegetation would be removed in non-certified areas and would require offsetting.</p>	<p>Section 6.2.</p>
	<ul style="list-style-type: none"> • Air quality issues that should be considered in the REF for the construction works include: <ul style="list-style-type: none"> – Dust emissions from activities such as earthmoving, excavation, loading and vehicle traffic (particularly from unsealed roads and surfaces. – Wind erosion from exposed surfaces and stockpiles. – Assessment of the impact of exhaust emission from vehicles and other motorised equipment being operated on-site. 	<p>Air quality impacts were assessed in the preparation of this REF and suitable safeguards have been provided to avoid, manage and mitigate potential dust, erosion and emission impacts during construction.</p>	<p>Section 6.11.</p>

Stakeholder	Issues raised	Response	Where addressed in REF
	<ul style="list-style-type: none"> An air quality management plan should be developed for the site to describe proposed mitigation measures and safeguards to control dust generation and to minimise impact on nearby receptors. 	<p>Measures to protect air quality would be included in the air quality management section of the construction environmental management plan (CEMP). A separate air quality management plan would not be developed as the measures included in the CEMP specific to air quality would adequately manage the potential impacts. The CEMP would be prepared prior to the commencement of works.</p>	<p>Section 6.11.4.</p>
	<ul style="list-style-type: none"> The REF should identify, describe and quantitatively assess the potential impacts of the development on water quality and the aquatic environment both during construction and operational phase, and describe measures to avoid or minimise these impacts. 	<p>Impacts on aquatic environment and water quality and associated mitigation measures have been considered in this REF.</p>	<p>Sections 6.2.</p>
	<ul style="list-style-type: none"> An integrated soil and water management plan should be developed to prevent an increase in pollutant loads being exported from the site both during construction and operation. 	<p>This REF includes a safeguard to ensure that a soil and water management plan would be prepared as part of the CEMP. This plan would include measures to avoid and minimise any increase in pollutant loads being exported from the site during construction.</p> <p>During operation the concept design includes permanent spill basins for the capture of accidental spills such as hydrocarbons. The spill basins were designed to contain spills in dry weather or during small storm events such as the 1 in 1 year ARI. Following containment, the spills would be pumped out and disposed of in an appropriate manner.</p>	<p>Section 6.6.</p>

Stakeholder	Issues raised	Response	Where addressed in REF
		Grass swales and channels have also been included as a water quality treatment to promote uptake of nutrients and pollutants from low-flow, first-flush run-off events.	
	<ul style="list-style-type: none"> The REF should assess the potential noise impacts of the development on sensitive receivers during constructions and operation, and describe measures to minimise or mitigate these impacts. 	This REF assesses the potential construction and operational noise impacts of the proposal and provides safeguards to minimise, manage and mitigate the identified impacts.	Section 6.5.
	<ul style="list-style-type: none"> The preparation of an environmental management plan is recommended to guide the environmental performance during the project. 	The project environmental management plan (PEMP) and contractors environmental management plan (CEMP) to be prepared for the proposal would include safeguards and management measures outlined in this REF.	Section 7.1.
	<ul style="list-style-type: none"> The project will require an environmental protection licence for 'road construction' under Schedule 1 of the Protection of the Environment Operations Act 1997. 	An environmental protection licence (EPL) (under the POEO Act) would be obtained prior to the commencement of construction works.	Sections 4.3.3 and 7.3.
Hawkesbury Nepean Catchment Management Authority	<ul style="list-style-type: none"> All vegetation should be field surveyed by a qualified ecologist to determine its type and conservation status. 	The vegetation was surveyed by qualified ecologists as part of the ecological assessment to determine its presence and conservation status and develop mitigation measures where impacts are unavoidable.	Section 6.2 and Appendix D.
	<ul style="list-style-type: none"> All wildlife habitat features should be identified in areas where vegetation clearing is proposed. 	All habitat features for wildlife have been identified as part of this REF.	Section 6.2 and Appendix D.

Stakeholder	Issues raised	Response	Where addressed in REF
	<ul style="list-style-type: none"> An offset strategy should be prepared, and should be included as a condition of approval. Any clearing of native vegetation should be offset before clearing occurs. 	<p>The REF includes a safeguard to prepare an offset strategy for the proposal where native vegetation mapped as ENV would be cleared in non-certified areas of the South West Growth Centre. This strategy would be developed in accordance with the <i>RMS Guideline for Biodiversity Offsets</i>, November 2011 and in consultation with relevant agencies, including to identify when offsets would be implemented.</p>	<p>Section 6.2.3</p>
Heritage Branch	<ul style="list-style-type: none"> The heritage significance of the proposal and any impacts the development may have upon this should be assessed. This assessment should include natural areas and vegetation and places of Aboriginal, historic or archaeological significance. It should also include a consideration of wider heritage impacts in the area. 	<p>The heritage significance of the proposal, including vistas, natural areas, vegetation and places of Aboriginal, historic or archaeological significance has been assessed in this REF. Assessment of heritage items outside the proposal but within the study area were assessed. For instance, the cumulative impacts to Aboriginal heritage items were addressed in the CHAR.</p>	<p>Section 6.3, section 6.4, Appendix E and Appendix H.</p>
	<ul style="list-style-type: none"> The REF should consult lists maintained by the Office of Environment and Heritage including NSW National Parks and Wildlife Service as well as heritage items listed on www.heritage.nsw.gov.au/listings; the National Trust of Australia (NSW), the Australian Government under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> and Camden and Liverpool 	<p>Relevant heritage lists were consulted.</p>	<p>Section 6.3, section 6.4, Appendix E and Appendix H.</p>

Stakeholder	Issues raised	Response	Where addressed in REF
	<p>City Councils in order to identify any identified items of heritage significance in the area affected by the proposal.</p>		
	<ul style="list-style-type: none"> Non-Aboriginal cultural heritage items within the area affected by the proposal should be identified by the field survey. This should include any buildings, works, historic kerbs, gutters, culverts, bridges, mile stones, post-and-rail fences, relics (including relics underwater), gardens, landscapes, views, trees or places of non-Aboriginal cultural heritage significance. 	<p>The non-Aboriginal cultural heritage assessment included a field survey.</p>	<p>Section 6.4 and Appendix E.</p>
	<ul style="list-style-type: none"> A statement of significance and an assessment of the impact of the proposal on the heritage significance of each of these identified items should be undertaken. Any policies/measures to conserve their heritage significance should be identified. The assessment should be undertaken in accordance with the guidelines in the <i>NSW Heritage Manual</i>. The field survey and assessment should be undertaken by a qualified practitioner/consultant with experience working with historic 	<p>Statements of Heritage Impacts were undertaken for each heritage item affected by the proposal.</p> <p>The non-Aboriginal cultural heritage assessment undertaken by Artefact Heritage Services was prepared in accordance with <i>NSW Heritage Manual</i>.</p> <p>The field survey and assessment was undertaken by Artefact Heritage (Dr Sandra Wallace) who is a qualified practitioner/consultant with experience working with historic sites.</p>	<p>Section 6.4 and Appendix E.</p>

Stakeholder	Issues raised	Response	Where addressed in REF
	sites.		
	<ul style="list-style-type: none"> The proposal should have regard to any impacts on places, items or relics of significance to Aboriginal people. Where it is likely that the project will impact on Aboriginal cultural heritage, adequate community consultation should take place regarding the assessment of significance, likely impacts and management/mitigation measures. 	<p>An Aboriginal cultural heritage assessment was undertaken for the proposal in accordance with RMS Procedure for Aboriginal Cultural Heritage Consultation and Investigation (PACHCI). This included consultation with Aboriginal stakeholders regarding impacts on Aboriginal cultural items and that a section 90 Aboriginal heritage interim permit (AHIP) would be required pursuant to the NPW Act.</p>	Section 6.3
	<ul style="list-style-type: none"> The relics provisions in the Heritage Act require an excavation permit to be obtained from the Heritage Council, or an exception to be endorsed by the Heritage Council, prior to commencement of works if disturbance to a site with known or potential archaeological relics is proposed. If any unexpected archaeological relics are uncovered during the course of work, excavation should cease and an excavation permit, or an exception notification endorsement, obtained. 	<p>A number of archaeological sites, or potential archaeological sites were identified within the proposal. Relevant approvals would be sort from the Heritage Council prior to construction commencing.</p> <p>Should Aboriginal cultural heritage items be uncovered during construction, the RMS Unexpected Archaeological Finds Procedure (RMS 2012) would be followed. All work in the vicinity of the find would cease and the RMS Aboriginal Cultural Heritage Advisor and the regional environmental officer would be contacted immediately. Works in the vicinity of the find would not re-commence until clearance is received from those RMS officers and the OEH.</p>	Section 6.4 and Appendix E.
	<ul style="list-style-type: none"> If they exist, archaeological zoning plans or archaeological management plans should also 	<p>A database and literature review was undertaken as part of the non-Aboriginal heritage assessment. Potential archaeological sites have been identified</p>	Section 6.3 and Appendix E.

Stakeholder	Issues raised	Response	Where addressed in REF
	be consulted. Where items or areas are known or likely to exist, the REF and project works should seek to minimise any adverse impacts on archaeological potential of the road itself, within and adjacent to the existing and proposed road corridor.	and assessed in this REF.	
	<ul style="list-style-type: none"> If approval is required under the Heritage Act due to the listing of an item or place on the State Heritage Register, or being subject to an Interim Heritage Order, the Heritage Council's approval must be sought prior to an approval being issued by the consent under the EP&A Act. 	An exemption under section 57(2) of the <i>Heritage Act 1977</i> would be obtained for works associated with Orielton. An exception under section 139 of the <i>Heritage Act 1977</i> would also be obtained for works associated with Narellan Army Camp. Two permits under section 60 and section 140 of the <i>Heritage Act</i> would be required to undertake archaeological monitoring at Hillside Drive, and excavation at Mersey Road intersection in relation to Lot 1, DP 234403 respectively.	Section 6.4 and Appendix E.
Liverpool City Council	<ul style="list-style-type: none"> Requested that a copy of the REF be submitted for council review and feedback. 	The REF would be placed on public display and made available to all stakeholders.	Executive summary.
	<ul style="list-style-type: none"> Preliminary civil and landscape design plans for proposal should also be submitted for review, including any supporting studies eg flooding and drainage, water cycle management, traffic and pedestrian, etc. 	Councils will be consulted in relation to landscaping undertaken outside of the road boundary. As the REF would be placed on display and made available to all stakeholders supporting assessments to the REF including the hydrology assessment and traffic assessments would be made available for review by council.	Section 6.10.
	<ul style="list-style-type: none"> The REF and design should consider and incorporate the adjoining future residential releases in conjunction with the 	This REF has considered the future residential releases in South West Growth Centre.	Section 6.8.

Stakeholder	Issues raised	Response	Where addressed in REF
	South West Growth Centre.		
Rural Fire Service	<ul style="list-style-type: none"> Access should be provided during construction of the upgrade for fire appliances. As fire vehicles will still require access to and from the area during an emergency event and preparation of traffic congestion should be considered. 	Access during construction has been addressed in this REF.	Section 6.1 and section 6.9.
	<ul style="list-style-type: none"> Landscaping should be provided in accordance with Appendix 5 of Planning for Bushfire Protection 2006, as maintained land reduces the likelihood of bush fire spread and ember attack. 	Landscaping would be provided as part of the proposal. The urban design master plan provides an outline of the proposed landscaping requirements. Specific details in relation to the landscaping that would be undertaken would be reviewed and confirmed in the detailed design.	Section 6.10 and Appendix I.
Sydney Water Corporation	<ul style="list-style-type: none"> Indicative timeframe for the proposed upgrade works. 	The Northern Road would be upgraded in stages in conjunction with precinct development in the South West Growth Centre. This would largely be dependent on the future land releases and the allocation of funding by the Government, and developers of the South West Growth Centre.	Section 3.3.1.

5.7 Ongoing or future consultation

This REF has been placed on public display and community comments invited. All comments received will be considered in finalising the proposal's concept design. The community will be kept informed of any further changes to the proposal resulting from this and any future consultation process.

Information sessions will be held during the REF public display period. Details of these information dates and locations will be advertised prior to the events and issued in a RMS community update.

In addition, the following ongoing consultation will be undertaken:

- Ongoing meetings with the DP&I, Liverpool City Council, Camden Council, utility providers, Transport Construction Authority, Transport for NSW and other stakeholders as required.
- Ongoing updates to the community during the detailed design.
- Consultation with community stakeholders to assist in managing impacts during construction.
- Follow-up meetings to discuss access arrangements with directly affected landowners prior to construction impacts.
- The construction contractor would develop a communication plan to kept residents and road users up to date on construction progress. This would include:
 - Notifying residents when works will commence.
 - Notifying residents of night works.
 - Notifying residents of access issues.