

## RESPONSE TO AGENCY SUBMISSIONS

Issues Raised	Response
<b>Department of Environment, Climate Change and Water</b>	
<ul style="list-style-type: none"> <li>The full basis of the assessment of the low risk assessment in the North Penrith Regional Flooding Report is not clear. Table 2 refers to the maximum depths of flooding in the P1 area above the 100 year flood level during a 200 year flood event as being 0 to 0.3 metres. The text in the report gives the depth of flooding as 1.0 metre which is correct. The inconsistency should be addressed as it may result in a "Medium" or "High" risk structural damage rating.</li> </ul>	<ul style="list-style-type: none"> <li>The Regional Flooding Assessment report nominates the flood depths and velocity vectors for the 200 year Average Recurrence Interval flood based on the existing topography of the site.</li> <li>The Regional Flooding Assessment recommends that final ground surfaces within the development be at or above the 100 year ARI flood level which will require up to 1.5 metres of fill in some of the lower areas. The recommendation of filling to low lying areas has been incorporated into the site grading plan.</li> <li>The flood risk assessment was conducted based on the proposed topography of the development (i.e., including the filling of low lying areas). Accordingly, the flood level during a 200 year flood event is estimated to be 0 to 0.3 metres and thereby forming the basis of the risk assessment.</li> </ul>
<ul style="list-style-type: none"> <li>"Flood Aware" development controls are needed for all development below the flood of record (i.e. 1867 flood) and/or the 200 year flood level in order to limit/avoid structural and contents damage in residential development. This should be to an amount which can be endured by individual households and ensure flood insurance premiums remain affordable.</li> </ul>	<ul style="list-style-type: none"> <li>The structural damage risk over the entire site is categorised as either none or low depending on the location.</li> <li>As indicated in the Hawkesbury Nepean Floodplain Management Steering Committee guidelines, a low structural risk is considered an acceptable community expectation and consequently does not require flood mitigation or flood proofing measures for the construction of dwellings and should ensure that flood insurance premiums remain affordable for those areas categorised as "low risk".</li> </ul>
<ul style="list-style-type: none"> <li>In order to minimise the risk of effective flood evacuation, the site grading and road layout, road grading needs to provide for staged orderly retreat to high ground away from rising floodwaters.</li> </ul>	<ul style="list-style-type: none"> <li>In order to minimise the risk of effective flood evacuation the road network has been designed to provide safe egress to higher ground for areas with the potential to be inundated in extreme flood events.</li> <li>The lowest road level within the development is 26.0m AHD and occurs at the intersection of Daniel Woodriff Drive and Grace Drive.</li> <li>Road levels generally grade upwards from this intersection at 1% towards the south-eastern corner of the site. The proposed grading plan enables a clear evacuation route from areas with the potential to be inundated in extreme flood events (i.e., greater than the 100 year flood) to the safety of higher ground.</li> </ul>
<ul style="list-style-type: none"> <li>The SES should be consulted to help determine the acceptability of the proposed car based flood evacuation strategy.</li> </ul>	<ul style="list-style-type: none"> <li>The car based flood evacuation strategy put forward in the Regional Flood Assessment demonstrates that the proposed development will not have a significant adverse impact on the evacuation of existing areas or create a need to augment existing infrastructure.</li> </ul>

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<ul style="list-style-type: none"> <li>▪ The assessment for the Archaeological and Aboriginal cultural heritage is incomplete and does not provide either an archaeological or Aboriginal cultural heritage assessment of the grounds of Thornton Hall.</li> <li>▪ It is recommended that Landcom should assess the Aboriginal heritage values associated with the two historic properties in the development site (Thornton Hall and setting and the Combewood outbuildings).</li> </ul>	<ul style="list-style-type: none"> <li>▪ The SSS and Concept Plan do not propose any physical works to registered items of Aboriginal cultural value. The environmental assessment for the Stage 1 Project Application has determined that the area the subject of that proposal does not exhibit any Aboriginal heritage values that warrant protection/management.</li> <li>▪ The SSS and Concept Plan proposals are supported by a Aboriginal cultural heritage assessment that assessed the impacts of the proposal on identified (ie: known) items of Aboriginal cultural heritage as required by the Director General's Environmental Assessment Requirements issued by the Department of Planning.</li> <li>▪ The proposal recognises the presence of Item No. 45-5-2491 and proposes an appropriate curtilage to protect that item in situ, which has been endorsed by the local Aboriginal community.</li> <li>▪ Noting that the broader North Penrith site (including Thornton Hall and the Coombewood outbuildings) may exhibit additional (yet to be identified Aboriginal significance), the archaeological assessment has recommended that future investigations be undertaken prior to any physically works proceeding. Landcom has adopted this recommendation and incorporated it into its Statement of Commitments.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Cultural heritage and archaeological assessment should be completed for the grounds of Thornton Hall prior to determination of the proposal.</li> </ul>	<ul style="list-style-type: none"> <li>▪ As outlined above, the archaeological assessment prepared in support of the SSS and Concept Plan has recommended that future investigations be undertaken prior to any physically works proceeding.</li> <li>▪ Landcom has adopted this recommendation and incorporated it into its Statement of Commitments.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Assessment prior to a design on the proposal will identify whether the area contains Aboriginal objects or has the potential to contain an archaeological deposit and assess the archaeological and cultural significance of any identified Aboriginal objects and make recommendations to manage of the objects.</li> <li>▪ Therefore, Statement of Commitment No. 14 is not supported.</li> </ul>	<ul style="list-style-type: none"> <li>▪ The SSS, Concept Plan and Stage 1 Project Application do not currently propose any physical works to Thornton Hall.</li> <li>▪ Consultation with the local indigenous community indicated that the area surrounding Thornton Hall is not considered to exhibit any indigenous archaeological value. As outlined in the Indigenous Heritage Assessment prepared by Jo McDonald (<b>Appendix H</b> of the exhibited EAR), further archaeological assessment should be undertaken prior to any physically works proceeding. Landcom has adopted this recommendation and incorporated it into its Statement of Commitments.</li> </ul>

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<ul style="list-style-type: none"> <li>▪ The date the advertisement was placed in the Penrith Star.</li> <li>▪ All copies of correspondence sent and received in relation to Aboriginal community consultation have not been provided as required under the consultation guidelines.</li> <li>▪ The report should state if there has, or hasn't been any written responses received from agencies and the Aboriginal community.</li> </ul>	<ul style="list-style-type: none"> <li>▪ A copy of the advertisement that was published in the Penrith Star is included on page 16 of the Indigenous Heritage Assessment prepared by Jo McDonald (Appendices T and U of the exhibited EAR).</li> <li>▪ For DECCW's reference, as noted in the consultation log the published ad was circulated to the recognised stakeholders on the 6th July 2010.</li> <li>▪ The copies of the community representatives' reports were received in October 2010 and were inadvertently omitted from the Indigenous Heritage Assessment, however it should be noted that the receipt of written responses was still noted in the consultation log provided in the Assessment Report (pg 30).</li> <li>▪ The attached revised report contains copies of responses received from consulted groups. Further, the formal public exhibition of the EAR facilitated by the DoP between December 2010 and February 2011 provided an additional opportunity for stakeholders to make submissions and provide comments in relation to Landcom's proposal. It is noted that no submissions were received from indigenous groups during that process.</li> <li>▪ A revised version of the Indigenous Heritage Assessment Report has been appended to the PPR (<b>Appendix H</b>) and includes copies of all responses received from the indigenous community.</li> </ul>
<ul style="list-style-type: none"> <li>▪ The Flora and Fauna Assessment Report noted that grassland to the west of the woodlands is likely to have a similar composition of understorey flora although it is currently mown. This is not indicated in the total area of Cumberland Plain Woodland (CPW).</li> </ul>	<ul style="list-style-type: none"> <li>▪ The Flora and Fauna Report submitted with the exhibited EAR (Appendix P of the EAR) acknowledges that exotic grasses dominated both the mapped derived native grassland and the grassland to the west. However, previous mowing activities have removed much of the above-ground portions of grasses, and consequently it has been difficult to determine the species composition of the area to the west was including the presence and extent of any native grasses.</li> </ul>

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	<ul style="list-style-type: none"><li>▪ The recently introduced revised CPW community definition, which includes 'derived native grasslands', is also problematic to define and map in a "definitive" way, thus a precautionary approach has been applied, and is reflected in the Flora and Fauna Report (refer to pg 22 of the Report).</li><li>▪ Notwithstanding the above, during field work, it was observed that the mapped 'derived native grasslands' were heavily dominated by exotic grasses, but did include some native herbs (e.g. Kidney weed and Bluebell). Due to the proximity of the CPW remnants, Landcom's consultant mapped the subject area as 'derived native grassland' CPW as a precautionary measure due the possible influence of the adjacent woodlands.</li></ul>
	<ul style="list-style-type: none"><li>▪ The grassland to the west of these remnants is not considered to have sufficient influence from the western CPW remnant to maintain a native species composition due to the prevalence of exotic perennials grasses and herbs which have outcompeted native species elsewhere across the site in similar circumstances. As such, it was not deemed appropriate to include the grassland to the west of the woodlands as CPW 'derived native grasslands'.</li><li>▪ Accordingly, the areas of CPW are as per the Flora and Fauna Report.</li></ul>

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<ul style="list-style-type: none"> <li>▪ The Assessment does not quantify the area of CPW vegetation proposed to be removed.</li> <li>▪ The proposed use of a Section 88b instrument is not considered practical or effective and over time the vegetation may decline.</li> <li>▪ A Section 88e instrument rather than a Section 88b is recommended as it is more legally binding.</li> </ul>	<ul style="list-style-type: none"> <li>▪ The Flora and Fauna Report notes on pg 91 "The proposed action will clear and modify native vegetation that forms part of the Cumberland Plain Woodland (CPW) ecological community. The proposal will likely result in underscrubbing of all noneucalypt species in the remnants and the derived native grassland, though it should be noted that the proportion of native vegetation in these areas is quite low compared to exotics." That is, the Flora and Fauna Report recognises that all of the remnants (being 0.86ha as quantified in the Report) would be affected to some degree.</li> <li>▪ Whilst it is understood that a Section 88b limits activities, whereas a Section 88e instrument as suggested by DECCW, is a 'positive covenant', Landcom is of the view that components of the landscape design for the xxx park within which the CPW is proposed to be retained may be at odds with the intentions of a Section 88e Instrument (eg: the current design of the 'red stairs' park may be incompatible with DECCW's "positive management" objectives).</li> <li>▪ The Section 88b Instrument is proposed to apply to those native trees, and possibly shrubs that are identified for retention on pg 91 of the Flora and Fauna Report.</li> <li>▪ The use of a Section 88b is considered appropriate given the small size, isolation and degraded nature of the CPW remnants. Landcom would be willing to explore the creation of a Section 88e Instrument in place of the currently proposed Section 88b Instrument, if appropriate.</li> <li>▪ It should be noted that Landcom intends to dedicate to PCC the proposed open space area within which the CPW is to be located (identified OS2 in the Concept Plan). The revised Statement of Commitments obligate Landcom to the preparation of a Bushland Management Plan for this area to ensure the appropriate management of the CPW in this development block.</li> <li>▪ Proposed Development Block C3 will be subject to a future Bushland Management Plan and a covenant requiring the retention of the trees identified in <b>Figure 3</b> of the PPR.</li> </ul>
<ul style="list-style-type: none"> <li>▪ DECCW considers that all reasonable efforts should be made to retain and protect the second remnant of CPW in accordance with "<i>Recovering bushland on the Cumberland Plain: Best practice guidelines for the management and restoration of bushland</i>".</li> </ul>	<ul style="list-style-type: none"> <li>▪ All CPW remnants are of a small size, degraded by exotic species, and isolated from other remnants due to surrounding urban development.</li> <li>▪ Landcom's proposed response to the CPW is considered appropriate from an ecological perspective as outlined in the Flora and Fauna Report submitted with the exhibited EAR.</li> </ul>

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<ul style="list-style-type: none"> <li>The Statement of Commitments should include a requirement to prepare and implement a Bushland Management Plan for the CPW area to be retained as open space.</li> </ul>	<ul style="list-style-type: none"> <li>The Statement of Commitments includes provision for the preparation of a Plan of Management as set out in Section 5 of the exhibited Flora and Fauna Report (pg 36). This is considered to be adequate in this instance.</li> <li>Notwithstanding this, Landcom is committed to continuing to work with DECCW during the preparation of the Plan of Management to ensure that sufficient detail is provided and best practice is applied.</li> </ul>
<ul style="list-style-type: none"> <li>Replanting in areas of CPW should be with plants grown from local provenance seed.</li> </ul>	<ul style="list-style-type: none"> <li>Landcom confirms that local provenance plants (or seed) is preferred. The wooded CPW remnants on site do not contain sufficient native plants to make seed collection practicable as they are small (0.63 ha), the understorey is dominated by exotic species, and the groundcover comprises a mixture of native and exotic species. Whilst seed collection could be attempted by visiting local parks in the Penrith region, those in close proximity are also small and accordingly gathering sufficient seed is likely to difficult.</li> <li>In response to DECCW's recommendation, a suitable and practical alternative is for Landcom to prioritise it's preference for plantings within the wooded CPW remnants and pursue local provenance plants in the first instance. Where possible local provenance plants will be utilised, however should it not be possible to obtain local provenance plants after a reasonable attempt to source these, plants with provenance from the Sydney region may be utilised.</li> <li>The Revised Statement of Commitments reflects Landcom's intentions as described above.</li> </ul>
<b>Department of Planning</b>	
<ul style="list-style-type: none"> <li>The proposed quantum of commercial floor space (yields an estimated 770 jobs) is insufficient. The site could make a greater contribution towards the employment target for the Penrith LGA given the Draft North West Sub Regional Strategy.</li> <li>It is recommended that the proposal be amended to provide future opportunities. This may include deferring for future consideration or extending the area zoned for commercial uses in the SEPP amendment.</li> </ul>	<ul style="list-style-type: none"> <li>The exhibited EAR and PPR demonstrate that the North Penrith site's strategic context has been carefully considered . The SSS and Concept Plan proposals have considered the Department of Planning's Metropolitan Plan and North West Regional Strategy and collectively propose a sustainable quantum of residential and employment generating and uses that respond to the site's opportunities and constraints, and where relevant can be satisfactorily managed.</li> <li>Notwithstanding this, the SSS and Concept Plan also provide the opportunity to future proof the North Penrith site through Landcom's commitment to enter into a Memorandum of Understanding with Penrith City Council to explore and attempt to secure an appropriate large scale employment opportunity prior to submission of any relevant development application for built form development for the key mixed use sites.</li> </ul>

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<ul style="list-style-type: none"><li>▪ Heights should be reconsidered to provide more opportunities for potential higher density residential and commercial uses near the railway station.</li></ul>	<ul style="list-style-type: none"><li>▪ The exhibited EAR and PPR demonstrate that the North Penrith site's strategic context has been carefully considered . The SSS and Concept Plan proposals have considered the Department of Planning's Metropolitan Plan and North West Regional Strategy and collectively propose a sustainable quantum of residential and employment generating and uses that respond to the site's opportunities and constraints, and where relevant can be satisfactorily managed.</li><li>▪ A key component of the Concept Plan is to optimise the locational advantages of the site and promote efficient land use. Landcom seeks to "future proof" the North Penrith site by introducing new planning controls through the SEPP Amendment and the Concept Plan framework by providing maximum flexibility whilst encouraging built form outcomes that recognise the site's strategic location and potential synergies with the Penrith CBD.</li></ul>
	<ul style="list-style-type: none"><li>▪ The "future proofing" of the site is proposed to be delivered through the controls which enable short term built form outcomes to be realised immediately, but are also flexible enough to accommodate additional land uses and development as a critical mass is delivered. For example, the Village Centre may initially be developed as two and three storey buildings, however over time, development is expected to achieve up to six storeys.</li><li>▪ Section 3.2.4 of the PPR provides a comparison of the SEPP controls and Concept Plan controls and demonstrates that Landcom's proposal can provide additional jobs if the site was developed to its full potential.</li><li>▪ In addition, the SSS and Concept Plan also provide the opportunity to future proof the North Penrith site through Landcom's commitment to enter into a Memorandum of Understanding with Penrith City Council to explore and attempt to secure an appropriate large scale employment opportunity prior to submission of any relevant development application for built form development for the key mixed use sites.</li></ul>
<ul style="list-style-type: none"><li>▪ Further assessment should be provided for the assessment of the compatibility of the proposal with existing residential and industrial land uses surrounding the site.</li></ul>	<ul style="list-style-type: none"><li>▪ As outlined in Section 4.1, Landcom has taken the opportunity to reconfigure and adjust the proposed land use distribution, and particularly the proposed industrial land uses on the site. In doing so, Landcom is able to minimise the land use conflict between residential and industrial uses.</li></ul>

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<ul style="list-style-type: none"> <li>An analysis of the value of the proposed contributions (including local road infrastructure and dedication of open space and community facilities) are required. This should also compare the value of contributions that would be required in accordance with Council's city wide Section 94 plans if they were applied to the site.</li> <li>Landcom is encouraged to begin discussions with Penrith City Council with the aim of agreeing on an approach to deliver local infrastructure contributions. This will need to be resolved before the Stage 1 Project Application can be determined.</li> </ul>	<ul style="list-style-type: none"> <li>Section 6.13 of the exhibited EAR and the revised Statement of Commitments indicate that Landcom proposes to meets its obligations with respect to local development through the carrying out of works in kind, dedication of land and material public benefits.</li> <li>This approach is consistent with the contributions framework established elsewhere in Penrith City where contribution scan be made via works in kind and dedication of land.</li> <li>The revised Maintenance Schedule prepared by PLACE and attached at <b>Appendix I</b> of the PPR clearly outlines Landcom's intention to establish infrastructure through the Project Applications and is committed to owning and maintaining all infrastructure for a period of 36 months. Following handover to Penrith City Council, the Maintenance Schedule indicates that the ongoing costs to Council will be minimal.</li> <li>Notwithstanding this, Section 4.8 provides further analysis of the developer contributions and the recent discussions Landcom has held with Penrith City Council.</li> </ul>
<b>Industry and Investment</b>	
<ul style="list-style-type: none"> <li>No issues or comments to add from agriculture, fisheries or mineral perspectives.</li> </ul>	<ul style="list-style-type: none"> <li>Noted.</li> </ul>
<b>NSW Office of Water (NOW)</b>	



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<ul style="list-style-type: none"> <li>The Environmental Assessment (EA) does not provide sufficient details on the water balance for the site, proposed water use and water supply options for filling and topping up the proposed central canal.</li> </ul>	<ul style="list-style-type: none"> <li>Additional information on the stormwater management strategy for the North Penrith development has been provided to the NoW in a meeting held on 3 March 2011. During this meeting it was established that the following items be addressed: <ul style="list-style-type: none"> <li>Description of water balance objectives and outcomes undertaken as part of the Concept Plan Application stage;</li> <li>Description of the filling and topping up of the canal.</li> </ul> </li> <li>The central canal and constructed wetland form integral parts of the North Penrith stormwater management strategy. The central canal and constructed wetland both contribute to satisfying the stormwater quality and quantity management objectives for the site.</li> <li>The urban design of the proposed development seeks to derive aesthetic value from stormwater runoff by integrating stormwater management infrastructure into public open spaces.</li> <li>The central canal will maintain a relatively constant water level to enhance the aesthetics of the open space surrounding it. In order to maintain this relatively constant water level the canal will need to be “topped up” with water to offset the effects of evaporation.</li> <li>The central canal will be topped up with stormwater runoff captured in the deep water zone of the constructed wetland.</li> <li>No groundwater will be extracted to top up the water level in the central canal.</li> <li>The water balance was completed as part of the Environmental Assessment to demonstrate that there was a sufficient volume of water within the permanent pool volume of the constructed wetland to top up the central canal to a depth of 0.90 m over 80% of time.</li> <li>Discussions are currently ongoing with Sydney Water to establish a recycled water connection within the development to meet residential BASIX requirements, for the irrigation of public open spaces and to top up the central canal during extended dry periods.</li> </ul>
	<ul style="list-style-type: none"> <li>The central canal will not be topped up with extracted ground water.</li> </ul>

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<ul style="list-style-type: none"> <li>Not clear if the proposal intends to use surface water or groundwater as a water supply option.</li> </ul>	<ul style="list-style-type: none"> <li>The North Penrith development site will not seek approval to extract groundwater for any purpose.</li> <li>The central canal and constructed wetland form integral parts of the North Penrith stormwater management strategy. The central canal and constructed wetland both contribute to satisfying the stormwater quality and quantity management objectives for the site (i.e., Landcom's WSUD policy and maintaining existing peak discharges downstream of the site).</li> <li>The urban design of the North Penrith development utilises the constructed wetland and central canal to activate public open spaces. Central to the urban design philosophy is the relatively constant nature of the water level within the central canal. Preliminary water balance modelling indicates that the permanent pool volume of the constructed wetland can service the top up demands of the central canal.</li> <li>The topping up of the central canal with water from the permanent pool volume of the constructed wetland will offset the effects of evaporation within the central canal. Accordingly, it is important to note that stormwater is not being harvested from the site for aesthetic purposes beyond that which is required to meet stormwater quality objectives.</li> </ul>
<ul style="list-style-type: none"> <li>The site is located within the Hawkesbury Alluvials Groundwater Source embargo area and the embargo prevents any further applications for licences being made under Part 5 of the Water Act 1912 (there are some exemptions)</li> </ul>	<ul style="list-style-type: none"> <li>The North Penrith development is not seeking to extract groundwater for any purpose.</li> </ul>
<ul style="list-style-type: none"> <li>The Hawkesbury-Nepean surface water system is embargoed and no additional entitlement is permitted within this catchment. The proposal will be unable to obtain any new water entitlements directly and will have to enter the water trading market to seek additional water. There are no guarantees of obtaining additional water.</li> </ul>	<ul style="list-style-type: none"> <li>The North Penrith stormwater management strategy has been developed to ensure that the development achieves the required stormwater quality and quantity objectives set out by Penrith City Council and NoW.</li> <li>The stormwater quality management strategy incorporates a series of Water Sensitive Urban Design (WSUD) features within the development to ensure that the following average annual pollutant reductions are achieved:</li> </ul>

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	<ul style="list-style-type: none"> <li>▪ 80% reduction in post-development average annual loads for suspended solids;</li> <li>▪ 65% reduction in post-development average annual loads for total phosphorus; and</li> <li>▪ 45% reduction in post-development average annual loads for total nitrogen.</li> <li>▪ Features within the development include rainwater tanks, gross pollutant traps, sedimentation ponds (i.e., the central canal) and a constructed wetland.</li> <li>▪ In addition to providing benefits to stormwater quality, the central canal and constructed wetland provide stormwater detention volume to ensure that the proposed development does not increase peak flow rates downstream of the site for events up to the 100 year Average Recurrence Interval storm event.</li> <li>▪ Whilst the Hawkesbury-Nepean surface water system is embargoed, it is our belief that the constructed wetland and central canal fall under the "Special Dams Exempt From Harvestable Rights Calculations" for the following reasons: <ul style="list-style-type: none"> <li>▪ The constructed wetland and central canal are required to capture, contain and treat stormwater runoff in order to achieve environmental outcomes (i.e., reducing average annual stormwater pollutants);</li> <li>▪ The constructed wetland and central canal represent industry best practice and are required by regulation to prevent the contamination of downstream water bodies including Boundary Creek and the Nepean River; and</li> <li>▪ The harvested volume of the constructed wetland and central canal do not exceed the amount required to achieve stormwater quality objectives and are required to meet stormwater quality objectives.</li> </ul> </li> <li>▪ In addition to the stormwater quality benefit outlined above, the constructed wetland will incorporate a volume of storage above the operational characteristics of the constructed wetland. This volume of storage will be used to provide flood detention and mitigation.</li> <li>▪ It is important to note that this volume is above the operational characteristics of the constructed wetland. Accordingly, the volume of the constructed wetland providing flood storage and mitigation is not pumped or stored for use within the central canal.</li> </ul>

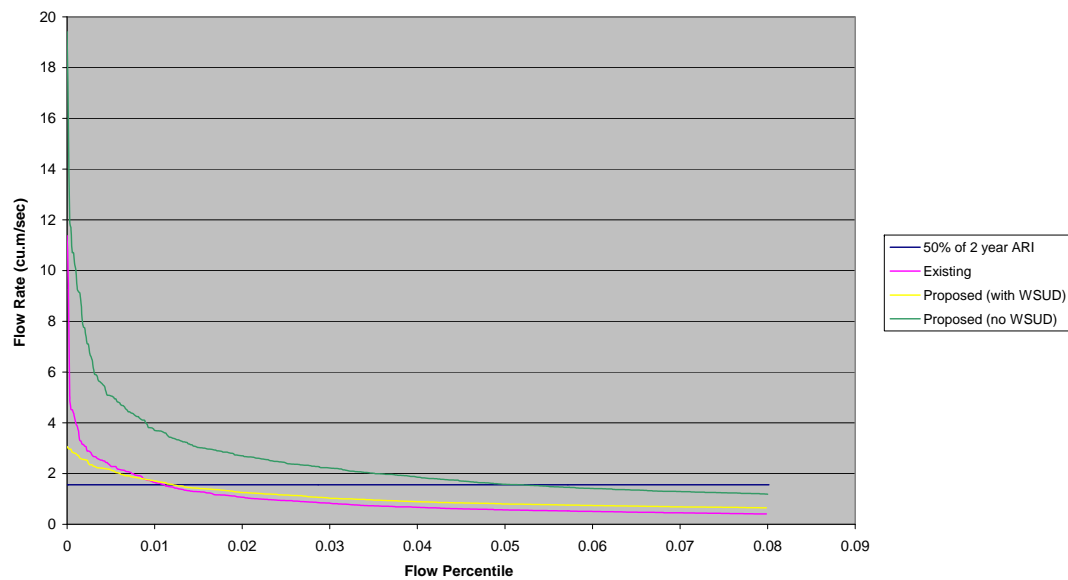
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<ul style="list-style-type: none"> <li>NOW recommends additional water balance modelling is undertaken.</li> </ul>	<ul style="list-style-type: none"> <li>It is understood that NOW is seeking water balance modelling that confirms that the proposed development will result in no net loss of stormwater runoff.</li> <li>As part of the Environmental Assessment MUSIC modelling was undertaken to determine the effectiveness of proposed Water Sensitive Urban Design measures and to determine the volumetric runoff coefficients for the existing and proposed scenarios.</li> <li>MUSIC modelling was based on 6-minute pluviograph data from the Bureau of Meteorology rainfall station at Penrith Lakes (station number 67113) for the years 1998-2005 inclusive. Those years chosen reflect the long term average annual rainfall for the Penrith area whilst also containing a series of wet and dry years.</li> <li>Under existing conditions the average annual rainfall runoff from the site is approximately 90 ML/year. Under proposed conditions the average annual rainfall runoff from the site is approximately 155 ML/year. Thus, the proposed development will result in no net less of rainwater runoff entering the Hawkesbury-Nepean River system.</li> <li>Additional water balance modelling has been undertaken for the proposed development to demonstrate the following: <ul style="list-style-type: none"> <li>That the proposed development will result in no net loss in stormwater runoff into the Nepean River;</li> <li>That the proposed development does not adversely impact on erosion within Boundary Creek; and</li> <li>That there is sufficient storage capacity in the permanent pool volume of the constructed wetland to enable topping up of the central canal to occur throughout 1998-2010.</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>If there is any possibility of the development using groundwater, the applicant needs to advise the NOW before project approval.</li> </ul>	<ul style="list-style-type: none"> <li>There is no intention to extract or use groundwater.</li> </ul>

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<ul style="list-style-type: none"><li>▪ The development is not to impact the Nepean River system or Boundary Creek.</li></ul>	<ul style="list-style-type: none"><li>▪ The Environmental Assessment addressed the mitigation of potential adverse impacts on the Nepean River system and Boundary Creek by addressing stormwater quality and quantity management.</li><li>▪ Appropriate Water Sensitive Urban Design measures have been incorporated into the development to ensure that Landcom's stormwater quality objectives are met and to ensure that the proposed development does not have an unacceptable adverse impact on downstream receiving waters.</li><li>▪ Stormwater quantity will be managed on the site through the provision of a dedicated volume of detention sized appropriately to attenuate post-development flows back to pre-development flows for events up to the 100 year Average Recurrence Interval storm event.</li><li>▪ The Stream Erosion Index was calculated for the North Penrith development. The Stream Erosion Index is an acknowledged methodology for establishing the degree of erosion hazard associated with a modified flow regime and is directly related to the increased duration of flows exceeding a critical flow threshold (50% of the 2 year ARI peak flow).</li><li>▪ The existing scenario XP-RAFTS model estimates the existing 2 year ARI peak flow from the site to be 3.1 m<sup>3</sup>/s. Accordingly, a critical flow threshold of 1.55 m<sup>3</sup>/s was adopted for Stream Erosion Index calculations.</li><li>▪ Peak flow estimates from the site were taken from MUSIC models representing the proposed site conditions with and without Water Sensitive Urban Design measures. The MUSIC models used actual rainfall data from years 1998 to 2005 inclusive and included a series of "wetter than average" rainfall year. A chart showing the Stream Erosion Index is included below.</li></ul>

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<p>■</p>	<p>■ A Stream Erosion Index of 4.6 was calculated for the proposed scenario without WSUD whilst a Stream Erosion Index of 1.1 was calculated for the proposed scenario with WSUD. Based on the above Stream Erosion Index for the proposed development with WSUD scenario, it is unlikely that the North Penrith development will have any significant adverse impact on the existing erosive potential of Boundary Creek.</p> <p style="text-align: center;"><b>Stream Erosion Index</b></p> 

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<ul style="list-style-type: none"> <li>The NOW recommends maintaining a freeboard between the invert of the canal and the groundwater level of 2 metres.</li> </ul>	<ul style="list-style-type: none"> <li>Current geotechnical investigations at the site have established that the groundwater table is at depths greater than 5.0 m below the existing surface level. Additional geotechnical investigations are currently being undertaken to confirm the depth to the water table along the alignment of the central canal and within the footprint of the constructed wetland.</li> <li>To prevent losses, the central canal and constructed wetland will both be lined with an impermeable liner. Once the geotechnical investigation confirms the depth to groundwater at key locations beneath the central canal and constructed wetland design specifications and freeboard would be negotiated with NOW. These negotiations would be undertaken as part of the Stage 2 Project Application.</li> </ul>
<b>Penrith City Council</b>	
<ul style="list-style-type: none"> <li>The concept does not fully realise the strategic potential for the site for its opportunity to deliver high rise residential development and higher order employment.</li> </ul>	<ul style="list-style-type: none"> <li>The exhibited EAR and PPR demonstrate that the North Penrith site's strategic context has been carefully considered . The SSS and Concept Plan proposals have considered the Department of Planning's Metropolitan Plan and North West Regional Strategy and collectively propose a sustainable quantum of residential and employment generating and uses that respond to the site's opportunities and constraints, and where relevant can be satisfactorily managed.</li> <li>Notwithstanding this, the SSS and Concept Plan also provide the opportunity to future proof the North Penrith site through Landcom's commitment to enter into a Memorandum of Understanding with Penrith City Council to explore and attempt to secure an appropriate large scale employment opportunity prior to submission of any relevant development application for built form development for the key mixed use sites.</li> </ul>
<ul style="list-style-type: none"> <li>Government commitment to the provision, location and timing for delivery of north/south bus underpass needs to be confirmed at this time.</li> </ul>	<ul style="list-style-type: none"> <li>As outlined in Section 6.8.3 of the exhibited EAR, Landcom has designed the road network in recognition of the short-term / long term-term bus routes, as flows:               <ul style="list-style-type: none"> <li>Stage 1 locates the bus corridor within the entry boulevard, around The Oval (Smith's Paddock) and back towards Coreen Avenue;</li> <li>Stage 2 locates the bus corridor within the entry boulevard, around the Village Centre, and towards the future rail underpass (to be constructed by others) – refer to Figure 41.</li> </ul> </li> </ul>

## RESPONSE TO AGENCY SUBMISSIONS

Issues Raised	Response
<ul style="list-style-type: none"> <li>Stormwater management regime must accommodate the quantum and quality stormwater.</li> </ul>	<ul style="list-style-type: none"> <li>The exhibited EAR addressed stormwater management (refer to Appendix N of the exhibited EAR). Preliminary modelling work demonstrates that the North Penrith development and the area identified as Stage 1 will not result in increased peak discharges from the development site.</li> <li>The development requires approximately 11,000m<sup>3</sup> of detention volume to attenuate post-development peak flow rates back to pre-development levels. This equates to approximately 275m<sup>3</sup>/hectare which is indicative of advice provided by the Upper-Parramatta River Catchment Trust. Preliminary modelling indicates that Stage 1 will require approximately 4,000m<sup>3</sup> of detention volume to attenuate post-development peak flow rates back to pre-development levels. This equates to approximately 350m<sup>3</sup>/hectare.</li> <li>Runoff coefficients for the existing and proposed scenarios associated with the North Penrith development and Stage 1 were provided in the exhibited EAR. As outlined in the exhibited EAR appropriate stormwater detention structures will be constructed to maintain existing peak site discharge flow rates for events up to the 100 year ARI. Furthermore, the reported runoff coefficients lie within the acceptable range as set out in the 'Managing Urban Stormwater: Strategy Framework', Department of Environment and Conservation, 1997.</li> <li>Stormwater quality modelling has been undertaken using the MUSIC software package. Both the North Penrith Concept Plan and Stage 1 provide a suite of water sensitive urban design measures that provide stormwater quality improvement and have been integrated into the development to enhance aesthetics. The effectiveness of the water sensitive urban design measures were provided in the exhibited EAR.</li> <li>A comparison to existing pollutant levels has been undertaken to evaluate the impact of the North Penrith development and confirms no significant impacts are expected.</li> <li>The stormwater management strategy for the site will continue to evolve during the detailed design phases of the development as reflected in the revised Statement of Commitments.</li> </ul>
<ul style="list-style-type: none"> <li>Statement of commitments must address internal and external infrastructure demand generation; provide adequate trigger points for the provision of facilities and the timely preservation of heritage items.</li> </ul>	<ul style="list-style-type: none"> <li>The revised Statement of Commitments clearly sets out Landcom's commitment to provide infrastructure and facilities within and surrounding the North Penrith site that will be required to meet the demands of the incoming resident and worker population.</li> <li>In addition, the revised Statement of Commitments explicitly identifies Landcom's intentions with respect to European and indigenous heritage.</li> </ul>



## RESPONSE TO AGENCY SUBMISSIONS

Issues Raised	Response
<ul style="list-style-type: none"> <li>The proposed village centre should be zoned B2 Local Centre in lieu of B4 Mixed Uses.</li> </ul>	<ul style="list-style-type: none"> <li>Landcom is of the view that the B4 Mixed Uses zone is a more appropriate zone for the site than the B2 Local Centre zone. The B4 Mixed Uses Zone objectives are consistent with the overall vision Landcom is proposing to deliver within the North Penrith town centre.</li> <li>In addition, the B4 Mixed Uses Zone provides greater flexibility in the range of permissible uses, and importantly, permits residential flat design buildings with development consent, unlike the B2 Local Centre Zone.</li> <li>The B4 Mixed Uses Zone objectives and range of permissible uses are a greater attractant to future tenants wishing to locate in the Penrith LGA than the B2 Local Centre Zone. Accordingly, Landcom seeks the Department of Planning's endorsement of the B4 Mixed uses Zone.</li> </ul>
<ul style="list-style-type: none"> <li>High rise design must address unsightly visual impacts (clothes drying/storage).</li> </ul>	<ul style="list-style-type: none"> <li>The objectives and proposed controls as set out in the Draft SEPP amendment have been drafted to ensure that the visual impacts of the future built form are ameliorated (refer to <b>Appendix A</b>). In addition, Section 3.8 of the Draft DCP (<b>Appendix D</b>) specifically require future applications for built form to demonstrate that consider the visual impacts of future built form on the North Penrith site.</li> <li>Whilst the Concept Plan itself does not propose individual buildings at this stage Sections 3.8 and 3.11 of the Draft North Penrith DCP will ensure visual impacts associated with any proposed "high rise design" such as clothes drying and storage through provisions that collectively seek to: <ul style="list-style-type: none"> <li>ensure buildings are designed to achieve visual privacy;</li> <li>protect visual privacy; and</li> <li>provide high quality public domain and streetscapes (including the relationship between the private and public domains).</li> </ul> </li> <li>In addition, it should be noted that SEPP 65 and the Residential Flat Design Code will apply to any future applications for residential flat buildings and as such the visual impacts will need to be considered in the context of the requirements of that State Policy.</li> <li>Accordingly, it is considered that the proposal satisfactorily addresses visual impacts.</li> </ul>
<ul style="list-style-type: none"> <li>Lot sizes shown on Concept Plan need to be consistent with the proposed building height controls to reflect the high rise outcomes under the planning framework.</li> </ul>	<ul style="list-style-type: none"> <li>It should be noted that the lot sizes shown on the exhibited plans are minimum lot sizes only and are capable of being consolidated. As such, there is nothing in the proposed SEPP Amendment or the Concept Plan that precludes "high rise" outcomes being achieved on the site.</li> </ul>

## RESPONSE TO AGENCY SUBMISSIONS

Issues Raised	Response
<ul style="list-style-type: none"> <li>The proposal should ensure that the objectives of the Metropolitan Plan for Sydney 2036 will be met in determining the Concept Plan by requiring the delivery of high rise residential development and increased higher order employment opportunities on the site.</li> </ul>	<ul style="list-style-type: none"> <li>Both the SSS and Concept Plan provide the opportunity to future proof the North Penrith site through Landcom's commitment to enter into a Memorandum of Understanding with Penrith City Council to explore and attempt to secure an appropriate large scale employment opportunity prior to submission of any relevant development application for built form development for the key mixed use sites.</li> </ul>
<ul style="list-style-type: none"> <li>The Minister should be requested to require the establishment of, and Council representation on, a Design Review Panel to facilitate efficient processing of development applications.</li> </ul>	<ul style="list-style-type: none"> <li>Landcom's proposed future approvals process is outlined in Section 6.15 of the exhibited EAR. A Design Review Panel comprising Landcom, Penrith City Council and the project architect will be convened and will review applications for built form prior to development applications being lodged with Penrith City Council for approval.</li> <li>The Statement of Commitments has been revised to reiterate Landcom's commitment to the proposed approvals process.</li> </ul>
<ul style="list-style-type: none"> <li>The R1 General Residential zone should have objectives inserted requiring the delivery of high rise residential development as a component of the Concept Plan.</li> </ul>	<ul style="list-style-type: none"> <li>The SSS proposal has been revised to specifically encourage high rise residential development (refer to <b>Appendix A</b>).</li> </ul>
<ul style="list-style-type: none"> <li>The B4 Mixed Uses Zone should be replaced with a B2 Local Centre zone and allow schedule additional uses, in particular high rise residential development and higher order opportunities.</li> </ul>	<ul style="list-style-type: none"> <li>Landcom is of the view that the B4 Mixed Uses zone is a more appropriate zone for the site than the B2 Local Centre zone. The B4 Mixed Uses Zone objectives are consistent with the overall vision Landcom is proposing to deliver within the North Penrith town centre.</li> <li>In addition, the B4 Mixed Uses Zone provides greater flexibility in the range of permissible uses, and importantly, permits residential flat design buildings with development consent, unlike the B2 Local Centre Zone.</li> <li>The B4 Mixed Uses Zone objectives and range of permissible uses are a greater attractant to future tenants wishing to locate in the Penrith LGA than the B2 Local Centre Zone. Accordingly, Landcom seeks the Department of Planning's endorsement of the B4 Mixed uses Zone.</li> </ul>
<ul style="list-style-type: none"> <li>Insert objectives into the B2 zone that require the delivery of high rise residential development and higher order employment that support but do not compete with the Penrith City Centre.</li> </ul>	<ul style="list-style-type: none"> <li>As outlined above, Landcom is of the view that the B4 Mixed Uses Zone objectives and range of permissible uses are a greater attractant to future tenants wishing to locate in the Penrith LGA than the B2 Local Centre Zone.</li> <li>Accordingly, Landcom seeks the Department of Planning's endorsement of the B4 Mixed uses Zone.</li> </ul>

## RESPONSE TO AGENCY SUBMISSIONS

Issues Raised	Response
<ul style="list-style-type: none"> <li>The Concept Plan and Project Application for Stage 1 should be modified to remove the notional small lot subdivision pattern in key areas where higher density outcomes are to be encouraged and to facilitate the creation of 'super lots' to cater for this form of development.</li> </ul>	<ul style="list-style-type: none"> <li>The lot sizes shown on the exhibited plans are minimum lot sizes only and are capable of being consolidated. As such, there is nothing in the proposed SEPP Amendment or the Concept Plan that precludes "high rise" outcomes being achieved on the site.</li> <li>Notwithstanding the above, Landcom is in the process of developing building envelopes and modules and is testing the most efficient building typology for each proposed development block. Landcom proposes to utilise these investigations in its negotiations with future developers and purchasers of super lots to ensure that the proposed mix of housing typologies, as envisaged by the Concept Plan, is realised.</li> </ul>
<ul style="list-style-type: none"> <li>Lots located adjacent to the Lemongrove Conservation Area should be sympathetic with the predominant lot size in that area.</li> </ul>	<ul style="list-style-type: none"> <li>The North Penrith proposal presents an opportunity to provide an alternative housing range and typology, specific to the proposed range of allotment sizes and configurations.</li> <li>As outlined in Sections 7.9, 8.5, 8.6 and Appendices Q - U (inclusive), the North Penrith SSS and Concept Plan proposals have been designed having regard to the European and indigenous heritage values of the site. Development proposed to appropriate building alignment setbacks and other heritage specific controls proposed in the Concept Plan and the Draft North Penrith DCP.</li> <li>Accordingly, extending the Lemongrove Conservation Area's subdivision pattern into the North Penrith site is not considered necessary on heritage grounds.</li> </ul>
<ul style="list-style-type: none"> <li>The DCP does not contain any provisions to guide the delivery of high rise residential development or higher order employment outcomes at this stage. The DCP should be amended to reflect this.</li> <li>The DCP does not contain any provision to guide water management.</li> <li>Recommend that Part C, Section C3-Water Management Penrith DCP 2010 to development of the site.</li> </ul>	<ul style="list-style-type: none"> <li>The framework proposed to be established in the SEPP Amendment and Concept Plan provide sufficient provisions to attract "high rise residential development" and higher order employment outcomes. The Draft North Penrith DCP's purpose is to guide the future built form, not the actual distribution and quantum of land uses. It should also be noted that the indicative layout will result in greater intensity of both residential and employment generating uses than typically delivered in the Penrith LGA.</li> <li>As outlined in Section 1.4, the Draft North Penrith DCP proposes to adopt the relevant sections of the Penrith DCP 2006 and the relevant sections of the Draft DCP 2008 (when adopted), including water management, including Part C, Section C3-Water Management Penrith DCP 2010 to development of the site.</li> </ul>

## RESPONSE TO AGENCY SUBMISSIONS

Issues Raised	Response
<ul style="list-style-type: none"> <li>By providing more dwellings in higher rise apartment form would increase residential density and free up land for additional employment generating opportunities.</li> </ul>	<ul style="list-style-type: none"> <li>The lot sizes shown on the exhibited plans are minimum lot sizes only and are capable of being consolidated. As such, there is nothing in the proposed SEPP Amendment or the Concept Plan that precludes "high rise" outcomes being achieved on the site.</li> <li>Notwithstanding the above, Landcom is in the process of developing building envelopes and modules and is testing the most efficient building typology for each proposed development block. Landcom proposes to utilise these investigations in its negotiations with future developers and purchasers of super lots to ensure that the proposed mix of housing typologies, as envisaged by the Concept Plan, is realised.</li> </ul>
<ul style="list-style-type: none"> <li>A MoU would commit Landcom and the Council to vigorous pursuit of additional opportunities in future stages for provision of high rise residential it is recommended that the Minister request the MoU.</li> </ul>	<ul style="list-style-type: none"> <li>The framework proposed to be established in the SEPP Amendment and Concept Plan provide sufficient provisions to attract "high rise residential development" and higher order employment outcomes. It is inappropriate for Landcom to rely on a MoU process to deliver residential outcomes, particularly as Landcom intends to seek expressions of interest from future developers to develop super lots. The MoU process, as suggested by Council, relies on third parties agreeing at this early stage to provide "high rise residential" outcomes in the absence of planning approvals.</li> </ul>
<ul style="list-style-type: none"> <li>The scale and the type of commercial development permissible on the site should be limited so that it will complement but not compete with the Penrith City Centre. (PCC)</li> </ul>	<ul style="list-style-type: none"> <li>The proposed zones, zone objectives and development standards contained within the SSS proposal permit a theoretical maximum of <math>xxm^2</math> of commercial development on the site.</li> <li>In addition the Concepts Plan caps the maximum permissible commercial GFA to 10,300m<sup>2</sup>. It is therefore considered that the SSS and Concept Plan framework will supply sufficient commercial floor space without compromising the Penrith City Centre.</li> </ul>
<ul style="list-style-type: none"> <li>The MoU should target appropriate higher order employment opportunities that will complement not compete with PCC.</li> </ul>	<ul style="list-style-type: none"> <li>Landcom's revised Statement of Commitments obligate Landcom to enter into a Memorandum of Understanding with Penrith City Council to explore and attempt to secure an appropriate large scale employment opportunity prior to submission of any relevant development application for built form development for the key mixed use sites.</li> </ul>
<ul style="list-style-type: none"> <li>Council seeks a commitment of NSW Department of Industry and Investment, the Department of Premier and Cabinet and potentially the Department of Commerce and Metropolitan Development Authority to work with Council and Landcom to source and negotiate key anchor development.</li> </ul>	<ul style="list-style-type: none"> <li>Landcom encourages Council to make its own representations to the State Government as to how it may attract an anchor tenant to the site.</li> <li>Notwithstanding this, Landcom's SSS proposal and Concept Plan propose a sustainable quantum of residential and employment generating and uses that respond to the site's opportunities and constraints, and where relevant can be satisfactorily managed.</li> </ul>

## RESPONSE TO AGENCY SUBMISSIONS

Issues Raised	Response
<ul style="list-style-type: none"> <li>The site should require contributions towards district open space and cultural facilities in accordance with Council's adopted development contributions plans, as it would be inequitable for other residents of Penrith to pay the contributions and not North Penrith Urban Area.</li> </ul>	<ul style="list-style-type: none"> <li>Section 6.13 of the exhibited EAR and the revised Statement of Commitments indicate that Landcom proposes to meet its obligations with respect to local development through the carrying out of works in kind, dedication of land and material public benefits.</li> <li>This approach is consistent with the contributions framework established elsewhere in Penrith City where contribution can be made via works in kind and dedication of land. There is no suggestion that North Penrith and/or Landcom will not pay any contributions at all.</li> </ul>
<ul style="list-style-type: none"> <li>To assist with new settlement, it is proposed that a part time worker based on salary for a full time equivalent worker for 2 years will be employed within 12 months of occupation of the first dwelling for a maximum of 3 years.</li> </ul>	<ul style="list-style-type: none"> <li>The Social Planning Report prepared by Elton Consulting (Appendix AA of the exhibited EAR) recommends the employment of a part time worker. The revised Statement of Commitments reflects Landcom's commitment to create the recommended position for the suggested tenure.</li> </ul>
<ul style="list-style-type: none"> <li>Access Road 4 should be restricted to entry only.</li> </ul>	<ul style="list-style-type: none"> <li>Parsons Brinckerhoff has prepared a response to the issues raised by the RTA which is attached at <b>Appendix G</b> and summarised in Section 4.3.2 of the PPR.</li> <li>Landcom met with the RTA and DoP on 13 April 2011 to specifically discuss Landcom's proposed scope of road works and upgrades, and the costs associated with undertaking those works.</li> <li>At that meeting, the RTA indicated the six (6) identified intersections and cost of works attributed to their construction/upgrading was generally correct. In addition, the RTA confirmed that the apportions attributed to Landcom, proposed timing and assumptions regarding future projected growth surrounding the North Penrith site were also correct.</li> <li>The RTA did however indicate that the Parker Street/Oxford Street/Coreen Avenue/Richmond Road intersection's performance is low and therefore urgent upgrading is required. Landcom has agreed to undertake an interim upgrade (at full cost to Landcom) and has agreed to continue working with the RTA in the coming weeks to finalise the scope of works and costing required to upgrade the Parker Street/Oxford Street/Coreen Avenue/Richmond Road intersection.</li> <li>Landcom and the RTA have also agreed to also refine the exact scope of works and cost of works/upgrades required for the remaining five (5) identified intersections. DoP representatives present at the meeting have verbally advised Landcom that the position agreed with the RTA is acceptable.</li> <li>The revised Statement of Commitments reflect that position.</li> </ul>

### RESPONSE TO AGENCY SUBMISSIONS



Issues Raised	Response
<ul style="list-style-type: none"><li>▪ Intersection upgrades should be required for Coreen Ave/Castlereagh Road in order to allow all turning movements.</li></ul>	<ul style="list-style-type: none"><li>▪ Parsons Brinckerhoff has prepared a response to the issues raised by the RTA which is attached at <b>Appendix G</b> and summarised in Section 4.3.2 of the PPR.</li><li>▪ Landcom met with the RTA and DoP on 13 April 2011 to specifically discuss Landcom's proposed scope of road works and upgrades, and the costs associated with undertaking those works.</li><li>▪ At that meeting, the RTA indicated the six (6) identified intersections and cost of works attributed to their construction/upgrading was generally correct. In addition, the RTA confirmed that the apportions attributed to Landcom, proposed timing and assumptions regarding future projected growth surrounding the North Penrith site were also correct.</li><li>▪ The RTA did however indicate that the Parker Street/Oxford Street/Coreen Avenue/Richmond Road intersection's performance is low and therefore urgent upgrading is required. Landcom has agreed to undertake an interim upgrade (at full cost to Landcom) and has agreed to continue working with the RTA in the coming weeks to finalise the scope of works and costing required to upgrade the Parker Street/Oxford Street/Coreen Avenue/Richmond Road intersection.</li><li>▪ Landcom and the RTA have also agreed to also refine the exact scope of works and cost of works/upgrades required for the remaining five (5) identified intersections. DoP representatives present at the meeting have verbally advised Landcom that the position agreed with the RTA is acceptable.</li><li>▪ The revised Statement of Commitments reflect that position.</li></ul>

### RESPONSE TO AGENCY SUBMISSIONS



Issues Raised	Response
<ul style="list-style-type: none"><li>▪ Castlereagh Rd and Coreen Ave have been identified as collector roads. Given the volume of traffic on these roads, specific treatment such as roundabouts are required to ensure road safety.</li></ul>	<ul style="list-style-type: none"><li>▪ Parsons Brinckerhoff has prepared a response to the issues raised by the RTA which is attached at <b>Appendix G</b> and summarised in Section 4.3.2 of the PPR.</li><li>▪ Landcom met with the RTA and DoP on 13 April 2011 to specifically discuss Landcom's proposed scope of road works and upgrades, and the costs associated with undertaking those works.</li><li>▪ At that meeting, the RTA indicated the six (6) identified intersections and cost of works attributed to their construction/upgrading was generally correct. In addition, the RTA confirmed that the apportions attributed to Landcom, proposed timing and assumptions regarding future projected growth surrounding the North Penrith site were also correct.</li><li>▪ The RTA did however indicate that the Parker Street/Oxford Street/Coreen Avenue/Richmond Road intersection's performance is low and therefore urgent upgrading is required. Landcom has agreed to undertake an interim upgrade (at full cost to Landcom) and has agreed to continue working with the RTA in the coming weeks to finalise the scope of works and costing required to upgrade the Parker Street/Oxford Street/Coreen Avenue/Richmond Road intersection.</li><li>▪ Landcom and the RTA have also agreed to also refine the exact scope of works and cost of works/upgrades required for the remaining five (5) identified intersections. DoP representatives present at the meeting have verbally advised Landcom that the position agreed with the RTA is acceptable.</li><li>▪ The revised Statement of Commitments reflect that position.</li></ul>

### RESPONSE TO AGENCY SUBMISSIONS

Issues Raised	Response
<ul style="list-style-type: none"><li>Coreen Ave/Parker St/Richmond Rd intersection, and the Coreen Ave/ Coombes Drive intersection and the Coreen Ave/ Castlereagh Rd should require improvements.</li></ul>	<ul style="list-style-type: none"><li>Parsons Brinckerhoff has prepared a response to the issues raised by the RTA which is attached at <b>Appendix G</b> and summarised in Section 4.3.2 of the PPR.</li><li>Landcom met with the RTA and DoP on 13 April 2011 to specifically discuss Landcom's proposed scope of road works and upgrades, and the costs associated with undertaking those works.</li><li>At that meeting, the RTA indicated the six (6) identified intersections and cost of works attributed to their construction/upgrading was generally correct. In addition, the RTA confirmed that the apportions attributed to Landcom, proposed timing and assumptions regarding future projected growth surrounding the North Penrith site were also correct.</li><li>The RTA did however indicate that the Parker Street/Oxford Street/Coreen Avenue/Richmond Road intersection's performance is low and therefore urgent upgrading is required. Landcom has agreed to undertake an interim upgrade (at full cost to Landcom) and has agreed to continue working with the RTA in the coming weeks to finalise the scope of works and costing required to upgrade the Parker Street/Oxford Street/Coreen Avenue/Richmond Road intersection.</li><li>Landcom and the RTA have also agreed to also refine the exact scope of works and cost of works/upgrades required for the remaining five (5) identified intersections. DoP representatives present at the meeting have verbally advised Landcom that the position agreed with the RTA is acceptable.</li><li>The revised Statement of Commitments reflect that position.</li></ul>



## RESPONSE TO AGENCY SUBMISSIONS

Issues Raised	Response
<ul style="list-style-type: none"> <li>Appropriate arrangements should be in place to deliver the necessary arterial road improvements in a timely manner.</li> </ul>	<ul style="list-style-type: none"> <li>Parsons Brinckerhoff has prepared a response to the issues raised by the RTA which is attached at <b>Appendix G</b> and summarised in Section 4.3.2 of the PPR.</li> <li>Landcom met with the RTA and DoP on 13 April 2011 to specifically discuss Landcom's proposed scope of road works and upgrades, and the costs associated with undertaking those works.</li> <li>At that meeting, the RTA indicated the six (6) identified intersections and cost of works attributed to their construction/upgrading was generally correct. In addition, the RTA confirmed that the apportions attributed to Landcom, proposed timing and assumptions regarding future projected growth surrounding the North Penrith site were also correct.</li> <li>The RTA did however indicate that the Parker Street/Oxford Street/Coreen Avenue/Richmond Road intersection's performance is low and therefore urgent upgrading is required. Landcom has agreed to undertake an interim upgrade (at full cost to Landcom) and has agreed to continue working with the RTA in the coming weeks to finalise the scope of works and costing required to upgrade the Parker Street/Oxford Street/Coreen Avenue/Richmond Road intersection.</li> <li>Landcom and the RTA have also agreed to also refine the exact scope of works and cost of works/upgrades required for the remaining five (5) identified intersections. DoP representatives present at the meeting have verbally advised Landcom that the position agreed with the RTA is acceptable.</li> <li>The revised Statement of Commitments reflect that position.</li> </ul>
<ul style="list-style-type: none"> <li>An on-street parking strategy should be prepared and implemented during construction of the estate.</li> </ul>	<ul style="list-style-type: none"> <li>An on street strategy has been prepared by Parsons Brinckerhoff (refer to Section 4.0 of the PPR and <b>Appendix G</b>).</li> </ul>
<ul style="list-style-type: none"> <li>The concept plan should be supported by a clear cycleway strategy catering for both user groups.</li> </ul>	<ul style="list-style-type: none"> <li>Landcom's proposed cycleways are outlined in Section 6.8 of the exhibited EAR and have been designed to provide connectivity throughout the site and to adjoining areas.</li> <li>The cycleways are proposed to be provided in accordance with the requirements set out in Section 6.8.1 of the exhibited EAR.</li> </ul>

## RESPONSE TO AGENCY SUBMISSIONS

Issues Raised	Response
<ul style="list-style-type: none"> <li>Require a financial contribution towards the upgrade of the arterial road network as recommended by the Penrith Arterial Road Study.</li> </ul>	<ul style="list-style-type: none"> <li>Parsons Brinckerhoff has prepared a response to the issues raised by the RTA which is attached at <b>Appendix G</b> and summarised in Section 4.3.2 of the PPR.</li> <li>Landcom met with the RTA and DoP on 13 April 2011 to specifically discuss Landcom's proposed scope of road works and upgrades, and the costs associated with undertaking those works.</li> <li>At that meeting, the RTA indicated the six (6) identified intersections and cost of works attributed to their construction/upgrading was generally correct. In addition, the RTA confirmed that the apportions attributed to Landcom, proposed timing and assumptions regarding future projected growth surrounding the North Penrith site were also correct.</li> <li>The RTA did however indicate that the Parker Street/Oxford Street/Coreen Avenue/Richmond Road intersection's performance is low and therefore urgent upgrading is required. Landcom has agreed to undertake an interim upgrade (at full cost to Landcom) and has agreed to continue working with the RTA in the coming weeks to finalise the scope of works and costing required to upgrade the Parker Street/Oxford Street/Coreen Avenue/Richmond Road intersection.</li> <li>Landcom and the RTA have also agreed to also refine the exact scope of works and cost of works/upgrades required for the remaining five (5) identified intersections. DoP representatives present at the meeting have verbally advised Landcom that the position agreed with the RTA is acceptable.</li> <li>The revised Statement of Commitments reflect that position.</li> </ul>
<ul style="list-style-type: none"> <li>Commitment to its provision, location and timing for delivery needs for a future underpass connection to the bus/rail interchange on the southern side of the railway station.</li> </ul>	<ul style="list-style-type: none"> <li>As outlined in Section 6.8.3 of the exhibited EAR, Landcom has designed the road network in recognition of the short-term / long term-term bus routes, as flows:               <ul style="list-style-type: none"> <li>Stage 1 locates the bus corridor within the entry boulevard, around The Oval (Smith's Paddock) and back towards Coreen Avenue;</li> <li>Stage 2 locates the bus corridor within the entry boulevard, around the Village Centre, and towards the future rail underpass (to be constructed by others) – refer to Figure 41.</li> </ul> </li> </ul>

## RESPONSE TO AGENCY SUBMISSIONS

Issues Raised	Response
<ul style="list-style-type: none"> <li>The ongoing maintenance costs (eg water level monitoring, pump facilities) are not sufficiently comprehensive and will bear a financial commitment imposed on Council. Council's consideration and acceptance of the infrastructure should be subject to separate approval at a later stage.</li> </ul>	<ul style="list-style-type: none"> <li>The revised Maintenance Schedule prepared by PLACE Design in consultation with Landcom and Penrith City Council is attached at <b>Appendix I</b> of the PPR clearly outlines Landcom's intention to establish infrastructure through the Project Applications and is committed to owning and maintaining all infrastructure for a period of 36 months, with the exception of the community facility which may be handed over sooner (if 400 dwellings are occupied).</li> <li>Following handover to Penrith City Council, the Maintenance Schedule indicates that the ongoing costs to Council will be minimal.</li> <li>The revised Maintenance Schedule has been provided to Council, and Landcom has been advised that Council accepts the Schedule and costings.</li> </ul>
<ul style="list-style-type: none"> <li>A VPA should be required between the parties that would require the engagement of Council in any request to reconsider the Statement of Commitments.</li> </ul>	<ul style="list-style-type: none"> <li>Section 6.13 of the exhibited EAR and the revised Statement of Commitments indicate that Landcom proposes to meet its obligations with respect to local development through the carrying out of works in kind, dedication of land and material public benefits.</li> <li>This approach is consistent with the contributions framework established elsewhere in Penrith City where contribution can be made via works in kind and dedication of land.</li> <li>Accordingly, a VPA is not considered necessary in this instance.</li> </ul>
<ul style="list-style-type: none"> <li>It is not considered that the adaptive reuse of Thornton Hall for a public purpose has been adequately investigated. It is recommended that Landcom work with Council to identify appropriate and finally sustainable opportunities for the adaptive reuse.</li> </ul>	<ul style="list-style-type: none"> <li>The current SSS, Concept Plan and Stage 1 Project Application do not propose any physical works to Thornton Hall. Any required restoration works and final use of Thornton Hall will need to be subject to a future Project Application and approvals process.</li> <li>Thornton Hall's future tenure and use has also been discussed at a number of project team meetings attended by Landcom and Penrith City Council. At those meetings, community uses, aged care and other uses were identified as potential future options. However, as outlined in the exhibited EAR and supporting documentation, the supply, demand and requirements of the future market at the time of procurement will ultimately determine Thornton Hall's use and governance arrangements.</li> </ul>

## RESPONSE TO AGENCY SUBMISSIONS

Issues Raised	Response
	<ul style="list-style-type: none"> <li>▪ In project meetings held during the preparation of the EAR, consensus was reached that a residential use was the most appropriate form of development that could be determined at the concept plan stage, based on the location and size and configuration of the existing dwelling, as well as the curtilage constraints recommended by Landcom's heritage consultants (refer to Sections 6.6, 7.9 and 8.5 and Appendices D, Q and S).</li> <li>▪ Landcom's SSS and Concept Plan proposal contemplate a residential use, however the SSS proposal in particular provides sufficient flexibility to permit community facilities, educational establishments, group homes, health consulting suits and information and education facilities, should such uses be considered feasible.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Any identification restoration, interpretation and other relevant works relating to the specific heritage items on the site are undertaken in association with the state within which they are located and not unduly deferred.</li> </ul>	<ul style="list-style-type: none"> <li>▪ The current SSS, Concept Plan and Stage 1 Project Application do not propose any physical works to Thornton Hall or indeed other heritage items. Landcom acknowledges that it will need to secure the necessary planning and heritage approvals to undertake works to both European and indigenous heritage items in due course.</li> <li>▪ Consultation with the NSW Heritage Branch has been undertaken as part of the concept plan process and its continued input will be sought where necessary. The NSW Heritage Branch staff has indicated support for the Concept Plan. The proposal has had full regard for the heritage related considerations on the site, impeded by the various statutory heritage listings.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Any land below the 1 in 100 flood level should be filled to 0.5m above the identified 1 in 100 flood level, if the applicant does not want the land to be identified as land subject to flood related development controls on the 149 Certificate.</li> </ul>	<ul style="list-style-type: none"> <li>▪ A Regional Flooding Assessment has been completed for the North Penrith development. This assessment investigated the predicted behaviour of the Nepean River for a variety of extreme flood events including the 100 year, 200 year, 500 year, 1,000 year and Probable Maximum Flood.</li> <li>▪ The 100 year flood level within the development site has been approximated as 25.4m AHD. The Regional Flooding Assessment recommends that the minimum habitable floor level within the development should be 25.9m AHD.</li> <li>▪ The existing surface levels within the development range from approximately 25m AHD in the north-western corner of the site to 40m AHD in the south-eastern corner of the site.</li> <li>▪ The proposed development will require fill volume to be imported into the site. The minimum road level within the development will be 26.0m AHD. Thus, all roads will be above the 100 year flood level. Minimum lot level is 26.0m AHD which is 0.6 m above the 100 year ARI flood level.</li> </ul>

## RESPONSE TO AGENCY SUBMISSIONS

Issues Raised	Response
<ul style="list-style-type: none"> <li>Further flood analysis to identify whether or not the proposed fill will require increase flood levels and the local floodway and associated hazard areas on the site.</li> </ul>	<ul style="list-style-type: none"> <li>The Regional Flooding Assessment report nominates the flood depths and velocity vectors for the 200 year Average Recurrence Interval flood based on the existing topography of the site.</li> <li>The Regional Flooding Assessment recommends that final ground surfaces within the development be at or above the 100 year ARI flood level which will require up to 1.5 metres of fill in some of the lower areas. The recommendation of filling to low lying areas has been incorporated into the site grading plan.</li> <li>The flood risk assessment was conducted based on the proposed topography of the development (i.e., including the filling of low lying areas). Accordingly, the flood level during a 200 year flood event is estimated to be 0 to 0.3 metres and thereby forming the basis of the risk assessment.</li> </ul>
<ul style="list-style-type: none"> <li>Request a further stormwater analysis to confirm that post development flows do not exceed predevelopment flows at each location they enter Council's drainage system.</li> </ul>	<ul style="list-style-type: none"> <li>Preliminary hydrologic and hydraulic modelling has been undertaken to establish the existing and proposed discharges from the development site (Appendix X of the exhibited EAR). The results indicate that post development flows will not exceed predevelopment flows at each location they enter Council's drainage system.</li> <li>Through the provision of 11,000m<sup>3</sup> and 4,000m<sup>3</sup> of detention volume for the North Penrith development and Stage 1 respectively it has been established that the existing flow regimes downstream of the development can be maintained.</li> <li>The maintenance of existing flow rates downstream of the development site remains a key objective of the stormwater management strategies for the North Penrith development and Stage 1.</li> <li>As design advances more detailed hydraulic analyses of stormwater attenuation devices will be completed, as reflected in the revised Statement of Commitments.</li> </ul>
<ul style="list-style-type: none"> <li>The onsite sewage pumping station is to be located with a reasonable buffer zone to residential development.</li> </ul>	<ul style="list-style-type: none"> <li>The sewage pumping station will be situated on a block of land in accordance with Sydney Water's operational and maintenance requirements – including buffer zones to adjoining land uses.</li> <li>An odour assessment has been completed for the proposed sewage pumping station location by pae holmes which confirms significant odour impacts are not anticipated (refer to <b>Appendix CC</b> of the exhibited EAR).</li> </ul>

## RESPONSE TO AGENCY SUBMISSIONS

Issues Raised	Response
<b>Roads and Traffic Authority- Sydney Regional Development Advisory Committee</b>	
<ul style="list-style-type: none"> <li>The RTA supports the local road network improvements identified in the TMAP as detailed in Table 33 (pp 97-123) of the TMAP</li> </ul>	<ul style="list-style-type: none"> <li>Parsons Brinckerhoff has prepared a response to the issues raised by the RTA which is attached at <b>Appendix G</b> and summarised in Section 4.3.2 of the PPR.</li> <li>Landcom met with the RTA and DoP on 13 April 2011 to specifically discuss Landcom's proposed scope of road works and upgrades, and the costs associated with undertaking those works.</li> <li>At that meeting, the RTA indicated the six (6) identified intersections and cost of works attributed to their construction/upgrading was generally correct. In addition, the RTA confirmed that the apportions attributed to Landcom, proposed timing and assumptions regarding future projected growth surrounding the North Penrith site were also correct.</li> <li>The RTA did however indicate that the Parker Street/Oxford Street/Coreen Avenue/Richmond Road intersection's performance is low and therefore urgent upgrading is required. Landcom has agreed to undertake an interim upgrade (at full cost to Landcom) and has agreed to continue working with the RTA in the coming weeks to finalise the scope of works and costing required to upgrade the Parker Street/Oxford Street/Coreen Avenue/Richmond Road intersection.</li> <li>Landcom and the RTA have also agreed to also refine the exact scope of works and cost of works/upgrades required for the remaining five (5) identified intersections. DoP representatives present at the meeting have verbally advised Landcom that the position agreed with the RTA is acceptable.</li> <li>The revised Statement of Commitments reflect that position.</li> </ul>

### RESPONSE TO AGENCY SUBMISSIONS

Issues Raised	Response
<ul style="list-style-type: none"><li>▪ The improvements to intersections on the arterial road network which will be impacted by the development will require facilitation, timing and funding. A VPA is required to be entered and agreed between the RTA, DoP and the proponent to fully fund or partially fund the required works.</li><li>▪ Particular intersections upgrades include:<ul style="list-style-type: none"><li>- Parker Street/Richmond Road/Coreen Ave/Oxford St</li><li>- Castlereagh Road/Mullins Road/Coreen Ave</li><li>- Castlereagh/Peachtree Road/Grace Drive</li></ul></li><li>▪ It is acknowledged that other developments in Penrith contribute to the upgrade works to the intersections in Penrith, however the proponent would be required to contribute full or partially to works at the intersections.</li></ul>	<ul style="list-style-type: none"><li>▪ Parsons Brinckerhoff has prepared a response to the issues raised by the RTA which is attached at <b>Appendix G</b> and summarised in Section 4.3.2 of the PPR.</li><li>▪ Landcom met with the RTA and DoP on 13 April 2011 to specifically discuss Landcom's proposed scope of road works and upgrades, and the costs associated with undertaking those works.</li><li>▪ At that meeting, the RTA indicated the six (6) identified intersections and cost of works attributed to their construction/upgrading was generally correct. In addition, the RTA confirmed that the apportions attributed to Landcom, proposed timing and assumptions regarding future projected growth surrounding the North Penrith site were also correct.</li><li>▪ The RTA did however indicate that the Parker Street/Oxford Street/Coreen Avenue/Richmond Road intersection's performance is low and therefore urgent upgrading is required. Landcom has agreed to undertake an interim upgrade (at full cost to Landcom) and has agreed to continue working with the RTA in the coming weeks to finalise the scope of works and costing required to upgrade the Parker Street/Oxford Street/Coreen Avenue/Richmond Road intersection.</li><li>▪ Landcom and the RTA have also agreed to also refine the exact scope of works and cost of works/upgrades required for the remaining five (5) identified intersections. DoP representatives present at the meeting have verbally advised Landcom that the position agreed with the RTA is acceptable.</li><li>▪ The revised Statement of Commitments reflect that position.</li></ul>

## RESPONSE TO AGENCY SUBMISSIONS

Issues Raised	Response
<ul style="list-style-type: none"> <li>RTA does not support the proposed slip lane and downstream merge on Castlereagh Rd at the existing roundabout at Coreen Ave due to existing traffic congestion on Castlereagh Rd, south of the intersection. The applicant is to fully fund a four way intersection (without restricted movements) at Castlereagh Rd/Peachtree Rd and Grace Drive.</li> </ul>	<ul style="list-style-type: none"> <li>Parsons Brinckerhoff has prepared a response to the issues raised by the RTA which is attached at <b>Appendix G</b> and summarised in Section 4.3.2 of the PPR.</li> <li>Landcom met with the RTA and DoP on 13 April 2011 to specifically discuss Landcom's proposed scope of road works and upgrades, and the costs associated with undertaking those works.</li> <li>At that meeting, the RTA indicated the six (6) identified intersections and cost of works attributed to their construction/upgrading was generally correct. In addition, the RTA confirmed that the apportions attributed to Landcom, proposed timing and assumptions regarding future projected growth surrounding the North Penrith site were also correct.</li> <li>The RTA did however indicate that the Parker Street/Oxford Street/Coreen Avenue/Richmond Road intersection's performance is low and therefore urgent upgrading is required. Landcom has agreed to undertake an interim upgrade (at full cost to Landcom) and has agreed to continue working with the RTA in the coming weeks to finalise the scope of works and costing required to upgrade the Parker Street/Oxford Street/Coreen Avenue/Richmond Road intersection.</li> <li>Landcom and the RTA have also agreed to also refine the exact scope of works and cost of works/upgrades required for the remaining five (5) identified intersections. DoP representatives present at the meeting have verbally advised Landcom that the position agreed with the RTA is acceptable.</li> <li>The revised Statement of Commitments reflect that position.</li> </ul>
<ul style="list-style-type: none"> <li>Intersection upgrades shall be designed to meet the RTA's requirements and endorsed by a suitably qualified practitioner. The design requirements shall be in accordance with the RTA's Road Design Guide and Australian Codes of Practice.</li> <li>The certified copies of the civil design plans shall be submitted to the RTA for consideration and approval prior to the release of the Construction Certificate.</li> </ul>	<ul style="list-style-type: none"> <li>Noted and agreed. The revised Statement of Commitments reflects this requirement.</li> </ul>
<ul style="list-style-type: none"> <li>RTA fees for administration, plan checking, civil works inspections and project management shall be paid by the developer prior to commencement of works.</li> </ul>	<ul style="list-style-type: none"> <li>Noted and agreed. The revised Statement of Commitments reflects this requirement.</li> </ul>



### RESPONSE TO AGENCY SUBMISSIONS

Issues Raised	Response
<ul style="list-style-type: none"> <li>Developer will be required to enter a Works Authorisation Deed (WAD) for works. The WAD will need to be executed prior to the RTA's assessment of the detailed civil design.</li> </ul>	<ul style="list-style-type: none"> <li>Landcom has committed to entering into a Works Authorisation Deed for the range of works identified in Section 4.8.2 of the PPR.</li> </ul>
<ul style="list-style-type: none"> <li>Swept paths of the longest vehicle (serving individual sites and including garbage vehicles and buses) entering and exiting the subject subdivision site, as well as manoeuvrability through the subdivision shall be in accordance with AUSTROADS. A plan shall be submitted to the Department for approval at each stage of the development, which shows that the proposed development complies with the requirement.</li> </ul>	<ul style="list-style-type: none"> <li>Noted and agreed. The revised Statement of Commitments reflects this requirement.</li> </ul>
<ul style="list-style-type: none"> <li>A Construction Traffic Management Plan detailing construction vehicle routes, number of trucks, hours of operation, access arrangement and traffic control should be submitted to the Department for approval prior to issue of CC for each stage of development.</li> </ul>	<ul style="list-style-type: none"> <li>Noted and agreed. The revised Statement of Commitments reflects this requirement.</li> </ul>
<ul style="list-style-type: none"> <li>The developer shall be responsible for all public utility adjustment/relocation works, necessitated by the above work and as required by the various public utility authorities.</li> </ul>	<ul style="list-style-type: none"> <li>Noted. Landcom would accept the imposition of a condition on the relevant project applications (stage 1 and Stage 2).</li> </ul>
<ul style="list-style-type: none"> <li>A Transport Access Guide for all new residents at each stage of the development is required and must require all commercial tenants at the appropriate stage of the development to produce Workplace Travel Plans for employees and clients.</li> </ul>	<ul style="list-style-type: none"> <li>As outlined in the exhibited and revised Statement of Commitments. Landcom, through conditions on its future sales and tenancy agreements, will produce Transport Access Guides for new residents and require commercial tenants to produce a Workplace Travel Plans for their employees and clients.</li> </ul>

## RESPONSE TO AGENCY SUBMISSIONS

Issues Raised	Response
<ul style="list-style-type: none"> <li>Concern is raised volume of commuter car park traffic travelling along Daniel Woodriff Drive and Grace Drive (from Castlereagh Rd or Coreen Ave) to and from the commuter car park will create delays for vehicles turning into and out of the local street network, which may not be effectively managed through the proposed priority sign controlled arrangements.</li> <li>A roundabout is recommended at the intersection to improve the operation.</li> </ul>	<ul style="list-style-type: none"> <li>The new intersection proposed at Daniel Woodriff Drive/Grace Drive has been designed with a four-way give-way controlled intersection, with Daniel Woodriff Drive receiving priority. SIDRA modelling confirms that installation of a round-a-bout as suggested by the RTA and PCC is not justified on traffic performance grounds as the level of service is comparable to that expected with the installation of give way signs, as proposed (refer to detailed discussion and modelling at <b>Appendix G</b>).</li> </ul>
<ul style="list-style-type: none"> <li>The construction of Grace Drive and improvements to the intersection of Grace Drive/Peachtree Road/Castlereagh Rd will be necessitated at Stage 2B of the development. This will require further assessment by the RTA as part of a referral process for that stage.</li> </ul>	<ul style="list-style-type: none"> <li>Parsons Brinckerhoff has prepared a response to the issues raised by the RTA which is attached at <b>Appendix G</b> and summarised in Section 4.3.2 of the PPR.</li> <li>Landcom met with the RTA and DoP on 13 April 2011 to specifically discuss Landcom's proposed scope of road works and upgrades, and the costs associated with undertaking those works.</li> <li>At that meeting, the RTA indicated the six (6) identified intersections and cost of works attributed to their construction/upgrading was generally correct. In addition, the RTA confirmed that the apportions attributed to Landcom, proposed timing and assumptions regarding future projected growth surrounding the North Penrith site were also correct.</li> <li>The RTA did however indicate that the Parker Street/Oxford Street/Coreen Avenue/Richmond Road intersection's performance is low and therefore urgent upgrading is required. Landcom has agreed to undertake an interim upgrade (at full cost to Landcom) and has agreed to continue working with the RTA in the coming weeks to finalise the scope of works and costing required to upgrade the Parker Street/Oxford Street/Coreen Avenue/Richmond Road intersection.</li> <li>Landcom and the RTA have also agreed to also refine the exact scope of works and cost of works/upgrades required for the remaining five (5) identified intersections. DoP representatives present at the meeting have verbally advised Landcom that the position agreed with the RTA is acceptable.</li> <li>The revised Statement of Commitments reflect that position.</li> </ul>

## RESPONSE TO AGENCY SUBMISSIONS

Issues Raised	Response
<ul style="list-style-type: none"> <li>All cycle way routes should be in accordance with the "Penrith City Council Bicycle Plan" and provide connectivity throughout the site between Penrith Station and existing and proposed cycleway routes to the north of the development. The design of the cycleways should be in accordance with relevant Austroads publications.</li> </ul>	<ul style="list-style-type: none"> <li>Landcom's proposed cycleways are outlined in Section 6.8 of the exhibited EAR and have been designed to provide connectivity throughout the site and to adjoining areas.</li> <li>The cycleways are proposed to be provided in accordance with the requirements set out in Section 6.8.1 of the exhibited EAR.</li> </ul>
<ul style="list-style-type: none"> <li>Consideration should be given to providing bicycle parking facilities either within the commercial development or close to them, as well as end trips showers/changing rooms to encourage bicycle use.</li> </ul>	<ul style="list-style-type: none"> <li>Noted and agreed. The revised Statement of Commitments reflects this requirement.</li> </ul>
<ul style="list-style-type: none"> <li>The timing for the upgrade of the Coreen Ave and commuter car park road (Daniel Woodriff Drive) at the stage of occupation of the supermarket is appropriate for the volumes of traffic which will be generated by the development should be considered by the department.</li> </ul>	<ul style="list-style-type: none"> <li>Parsons Brinckerhoff has prepared a response to the issues raised by the RTA which is attached at <b>Appendix G</b> and summarised in Section 4.3.2 of the PPR.</li> <li>Landcom met with the RTA and DoP on 13 April 2011 to specifically discuss Landcom's proposed scope of road works and upgrades, and the costs associated with undertaking those works.</li> <li>At that meeting, the RTA indicated the six (6) identified intersections and cost of works attributed to their construction/upgrading was generally correct. In addition, the RTA confirmed that the apportions attributed to Landcom, proposed timing and assumptions regarding future projected growth surrounding the North Penrith site were also correct.</li> <li>The RTA did however indicate that the Parker Street/Oxford Street/Coreen Avenue/Richmond Road intersection's performance is low and therefore urgent upgrading is required. Landcom has agreed to undertake an interim upgrade (at full cost to Landcom) and has agreed to continue working with the RTA in the coming weeks to finalise the scope of works and costing required to upgrade the Parker Street/Oxford Street/Coreen Avenue/Richmond Road intersection.</li> <li>Landcom and the RTA have also agreed to also refine the exact scope of works and cost of works/upgrades required for the remaining five (5) identified intersections. DoP representatives present at the meeting have verbally advised Landcom that the position agreed with the RTA is acceptable.</li> <li>The revised Statement of Commitments reflect that position.</li> </ul>

### RESPONSE TO AGENCY SUBMISSIONS

Issues Raised	Response
<ul style="list-style-type: none"><li>All access roads and internal roads of the proposed subdivision are to be designed in accordance with AMCORD.</li></ul>	<ul style="list-style-type: none"><li>Noted and agreed. The revised Statement of Commitments reflects this requirement.</li></ul>
<ul style="list-style-type: none"><li>Layout of proposed car parking areas associated with subdivision development should be in accordance with AS 2890.1-2004 and AS 2890.2-2002 for heavy vehicle usage.</li></ul>	<ul style="list-style-type: none"><li>Noted and agreed. The revised Statement of Commitments reflects this requirement.</li></ul>
<ul style="list-style-type: none"><li>All works/regulatory signposting associated with the proposed development are to be at no cost to the RTA.</li></ul>	<ul style="list-style-type: none"><li>Noted and agreed.</li></ul>
<ul style="list-style-type: none"><li>Advised that the DoP should ensure that appropriate measures are implemented with Stage1 of the subdivision to discourage commuter parking on local streets.</li></ul>	<ul style="list-style-type: none"><li>Noted.</li></ul>
<ul style="list-style-type: none"><li>The DoP should ensure that adequate parking has been provided for each type of residential development including ancillary dwellings such as studios/seniors living/affordable housing.</li></ul>	<ul style="list-style-type: none"><li>Noted</li></ul>
<b>Sydney Water</b>	

## RESPONSE TO AGENCY SUBMISSIONS

Issues Raised	Response
<ul style="list-style-type: none"> <li>Confirmation cannot be given that the proposed 900-1000 dwellings, industrial area, however 1.25 ha commercial and retail precinct within the concept plan can be serviced by the existing water and wastewater network. An investigation will be undertaken and should be finalised by March 2011.</li> </ul>	<ul style="list-style-type: none"> <li>An assessment of the impact of the proposed development on existing water and wastewater networks is currently being undertaken.</li> <li>Landcom has engaged MISY Consulting to complete modelling work of the existing potable water and wastewater networks to determine if existing infrastructure has capacity to service the proposed development.</li> <li>Modelling work undertaken by MISY Consulting has been in accordance with modelling briefs provided by Sydney Water and has been reviewed by WorleyParsons. The 'Sewerage Code of Australia WSA 0202002-2.2 Part 1 (Sydney Water Edition 1 – Version 3' has been referenced in allocating appropriate Equivalent Person (EP) values for single dwellings, apartments and commercial space.</li> <li>Preliminary modelling outputs have established that there is sufficient capacity in the potable water and wastewater networks to service the proposed development. Modelling and reporting is currently being finalised and it is anticipated that Sydney Water will approve the completed modelling work by mid-March.</li> <li>Landcom will continue work closely with Sydney Water during the preparation of final water supply and sewer services plans. System modelling will be undertaken to assess the existing systems, the design of the proposed reticulation and the performance of the potable water supply and sewer services. System amplifications and modifications will be dealt with in accordance with SWC's Section 73 developer assessment and contributions planning procedures.</li> </ul>
<ul style="list-style-type: none"> <li>The feasibility of servicing the site with recycled water is also being investigated. Aimed to be complete by 2011.</li> </ul>	<ul style="list-style-type: none"> <li>Noted. Landcom is currently in discussions with both Penrith City Council and Sydney Water about potential supply options for recycled water.</li> <li>The proposed design of the required reticulation works, upgrades and performance specifications will be documented for the approval of SWC.</li> </ul>
<ul style="list-style-type: none"> <li>A Section 73 Certificate is to be enforced by all applicants for a Trade Waste agreement must be obtained before any discharge can be made to the sewer system.</li> <li>Further assessment of the impact of development will be undertaken when the proponent applies for a Section 73 Certificate.</li> </ul>	<ul style="list-style-type: none"> <li>Agreed. The Statement of Commitments has been amended to specifically commit Landcom to obtaining a Section 73 Certificate from Sydney Water. The proposed design of the required reticulation works, upgrades and performance specifications will be documented for the approval of SWC.</li> </ul>

## RESPONSE TO AGENCY SUBMISSIONS

Issues Raised	Response
<ul style="list-style-type: none"> <li>The proponent must fund any adjustments needed to Sydney Water infrastructure as a result of any development.</li> <li>The proponent should engage a Water Servicing Coordinator to get a Section 73 Certificate and manage the servicing aspects of the development.</li> </ul>	<ul style="list-style-type: none"> <li>Landcom will work closely with Sydney Water during the design development stage and throughout the Section 73 process. Landcom will negotiate with Sydney Water appropriate funding arrangements related to necessary amplification works required for the project.</li> <li>Agreed. The Statement of Commitments has been amended to specifically refer to a Water Servicing Coordinator.</li> </ul>
<b>Transport NSW</b>	
<ul style="list-style-type: none"> <li>The suggestions in the Transport Mobility and Accessibility Plan (TMAP) suggest that the opportunity for TNSW to explore long term improvement of bus connections to Penrith City Centre is a 'planned' project overstate the present situation given that the potential link is unfunded and would require further investigation into the feasibility prior to any consideration in the longer term.</li> </ul>	<ul style="list-style-type: none"> <li>As outlined in Section 6.8.3 of the exhibited EAR, Landcom has designed the road network in recognition of the short-term / long term-term bus routes, as flows: <ul style="list-style-type: none"> <li>Stage 1 locates the bus corridor within the entry boulevard, around The Oval (Smith's Paddock) and back towards Coreen Avenue;</li> <li>Stage 2 locates the bus corridor within the entry boulevard, around the Village Centre, and towards the future rail underpass (to be constructed by others) – refer to Figure 41.</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>Bus priority measures on key bus corridors, and identifying and protecting key corridors for the future expansion of the transport network, including corridors with long term potential are consistent with the Metropolitan Plan for Sydney 2036.</li> </ul>	<ul style="list-style-type: none"> <li>Noted.</li> </ul>
<ul style="list-style-type: none"> <li>The proposal is consistent with the objectives of the Penrith Regional City Transport Strategy which is currently being completed by TNSW.</li> </ul>	<ul style="list-style-type: none"> <li>Noted.</li> </ul>
<ul style="list-style-type: none"> <li>The DGRs pertaining to active and public transport have been satisfied subject to further detailed comment from RTA and RailCorp.</li> </ul>	<ul style="list-style-type: none"> <li>Noted.</li> </ul>
<ul style="list-style-type: none"> <li>TNSW supports the low allocation of car parking and efforts to integrate walking, cycling, existing commuter parking and public transport.</li> </ul>	<ul style="list-style-type: none"> <li>Noted.</li> </ul>

## RESPONSE TO AGENCY SUBMISSIONS

Issues Raised	Response
<ul style="list-style-type: none"> <li>Footpaths on both sides of roads and provision for safe cycle access to achieve a walkable and permeable precinct should be required as a condition of consent.</li> </ul>	<ul style="list-style-type: none"> <li>Footpaths and cycleways are to be provided as per Section 6.8.1 of the exhibited EAR.</li> </ul>
<ul style="list-style-type: none"> <li>Measures to ensure ongoing protection of a corridor on the site to permit the construction and operation of a potential future bus roadway across the rail line should also be required as a condition of consent.</li> </ul>	<ul style="list-style-type: none"> <li>The roads have been designed to accommodate future bus routes if extended into the site.</li> </ul>
<b>NSW Rail Corporation (RailCorp)</b>	
<ul style="list-style-type: none"> <li>To protect RailCorp's facilities the applicant should undertake a full Property &amp; Title search and physical surveys providing the information to RailCorp. The following condition of consent is therefore recommended: <i>The Applicant shall provide an accurate survey locating the development with respect to the rail boundary and rail infrastructure. This work is to be undertaken by a registered surveyor, to the satisfaction of RailCorp's representative.</i></li> </ul>	<ul style="list-style-type: none"> <li>Landcom would accept the imposition of a condition on the relevant project application (i.e.: Stage 2).</li> </ul>
<ul style="list-style-type: none"> <li>During demolition, excavation and construction, there is a need to ensure that there will be no adverse impact on the integrity of RailCorp's facilities or the operation of the network. The following condition of consent is recommended: <i>Prior to the issue of a Construction Certificate a Risk Assessment/Management Plan and detailed Safe Work Method Statements (SWMS) for the proposed works are to be submitted to the Rail Authority for review and comment on the impacts on rail corridor. The Principle Certifying Authority shall not issue the Construction Certificate until written confirmation has been received from the Rail Authority confirming that this condition has been satisfied.</i></li> </ul>	<ul style="list-style-type: none"> <li>Landcom would accept the imposition of a condition on the relevant project application (i.e.: Stage 2).</li> </ul>

### RESPONSE TO AGENCY SUBMISSIONS

Issues Raised	Response
<ul style="list-style-type: none"> <li>Any run off of stormwater discharge from the development site onto the rail corridor is unacceptable, during and after construction. The following conditions are therefore recommended:  <i>Given the development site's location next to the rail corridor, drainage from the development must be adequately disposed of/managed and not allowed to be discharged into the corridor unless prior approval has been obtained from Rail Authority.</i>  <i>Given the site's location next to the rail corridor, drainage from the development must be adequately disposed of/managed and not allowed to be discharged into the corridor unless prior approval has been obtained from RailCorp.</i> </li> </ul>	<ul style="list-style-type: none"> <li>The proposed grading plan for the North Penrith development Stage 1 will not direct stormwater runoff (<i>both piped and overland flow</i>) into the rail corridor.</li> <li>During construction appropriate measures will be put in place to ensure that stormwater runoff does not enter the rail corridor.</li> </ul>
<ul style="list-style-type: none"> <li>Prior to lodgement of a future Project Application or DA, that will involve excavation or other ground penetration of greater than 2m and within 25m of the rail corridor the following is to be prepared: <ul style="list-style-type: none"> <li>- A Geotechnical and Structural Report, and Excavation and Construction methodology that meets RailCorp's requirements.</li> <li>-Detailed cross section drawings showing ground surface, rail tracks, sub soil profile, proposed basement excavation and structural design of sub ground support adjacent to the Rail Corridor. All distances from the rail corridor and infrastructure are to be confirmed as accurate by a Register Surveyor.</li> <li>-No future rock anchors will be allowed within RailCorp land or easements.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Noted and agreed. Refer to revised Statement of Commitments.</li> </ul>



### RESPONSE TO AGENCY SUBMISSIONS

Issues Raised	Response
<ul style="list-style-type: none"><li>Endorsement from RailCorp is required prior to the lodgement of an application if any installation of fencing or landscaping is within 20m of the rail corridor.</li></ul>	<ul style="list-style-type: none"><li>Noted and agreed. Refer to revised Statement of Commitments.</li></ul>
<ul style="list-style-type: none"><li>A service search shall be undertaken to establish the existence and location of any rail services/utilities prior to lodgement of a Project Application.</li></ul>	<ul style="list-style-type: none"><li>Noted and agreed. Refer to revised Statement of Commitments.</li></ul>
<ul style="list-style-type: none"><li>All future Project Applications or DAs are to contain a drainage diagram confirming that drainage from the development will be adequately disposed of/managed and not allowed to be discharged into the corridor.</li></ul>	<ul style="list-style-type: none"><li>Noted and agreed. Refer to revised Statement of Commitments.</li></ul>
<ul style="list-style-type: none"><li>Prior to lodgement of a Project Application or DA an Electrolysis Expert shall be engaged to prepare a report on the Electrolysis Risk to the development from stray currents.</li></ul>	<ul style="list-style-type: none"><li>Noted and agreed. Refer to revised Statement of Commitments.</li></ul>
<ul style="list-style-type: none"><li>RailCorp recommends a more detailed study into cross corridor pedestrian activity and forecast station patronage. Pedestrian modelling should also be undertaken in order to gauge the projected demand and level of service across the concourse and to better understand future design requirements.</li></ul>	<ul style="list-style-type: none"><li>Landcom's proposed developer contributions are set out in Section 6.13 of the exhibited EAR. The specialist reports submitted with the EAR demonstrate that there is sufficient long term capacity at the Penrith Train Station to accommodate the North Penrith development and accordingly extensions and upgrades to Railway infrastructure are not warranted at the present time.</li></ul>