28 June 2016

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NSW Department of Planning & Environment
23-33 Bridge Street
Sydney NSW 2000

Attention: Evelyn Craigie

Response to Submissions
State Significant Development Application (SSD 7491) Proposed Dangerous Goods Facility, Lot 3 Warehouse 3B
Oakdale Central, Horsley Park (Lot 21 in Deposited Plan 1173181)

Dear Evelyn,

This Response to Submissions is submitted to the NSW Department of Planning & Environment (NSW DP&E) on behalf of Goodman Property Services (Aust) Pty Ltd and relates specifically to Warehouse 3B, Lot 3 within the Oakdale Central Estate, Horsley Park (SSD 7491).

The proposal as submitted to NSW DP&E seeks consent for the construction and operation of Dangerous Goods Facility that will operate on a 24 hour, 7 day basis. The proposal seeks consent for a total of 36,635sqm of GFA, including the following:

- Ambient warehouse area (35,840sqm);
- Office (700sqm); and
- Dock Office (95sqm).

State Significant Development 7491 was exhibited from **12 May 2016** until **10 June 2016**. A total of 11 submissions have been received to date from the following agencies and landowners:

1. NSW Department of Planning & Environment (Dangerous Goods Specialist);
2. NSW Department of Primary Industries;
3. Fairfield City Council;
4. Blacktown City Council;
5. Penrith City Council;
6. Safework NSW;
7. NSW Environment Protection Authority;
8. NSW Office of Environment & Heritage;
9. NSW Department of Industry;
10. Heritage Council of NSW;
11. Endeavour Energy;
12. Fire and Rescue NSW;
13. Transport for NSW; and
14. Two surrounding land owners.

Submissions are yet to be received from Sydney Water. Upon receipt of these, a separate submission will be made to DP&E responding to any matters raised.

In response to the submissions received to date, the following information is annexed in support of the proposal:

- **Appendix 1 – Response Matrix**
- **Appendix 2 – Advice Letter – Dangerous Goods**
- **Appendix 3 – Email Correspondence**
- **Appendix 4 – Revised Architectural Plans**

Based on the information included in this response, it is evident that sufficient evidence is provided to support the proposal in the current form.

Should you require further information, please contact the undersigned.

Yours Faithfully,

Andrew Cowan
Associate Director
Willowtree Planning Pty Ltd

Agency/Council	***Response***
Blacktown City Council	
Council's Traffic Management Coordinator considers that given that the development is outside of the Blacktown LGA, no detailed assessment is required from a traffic management point of view. *He considers that the development does not have a significant impact on the Blacktown LGA road network, and noted that as the haulage and transport routes will seek to use the arterial road network, as much as possible, and trucks will use Milner Avenue and Old Wallgrove Road (currently being upgraded), and from there be able to access the regional road network, including the M7 Motorway, that given these facts, no objection is raised to the proposed development at Oakdale Central from a traffic management point of view.*	Council's response is noted and agreed.
Office of Environment & Heritage	
I refer to your letter received 12 May 2016 by the Office of Environment and Heritage at Warehouse 3B Oakdale Central, Horsley Park (SSD 7491). OEH understands that the proposal involves the construction and operation of a dangerous goods storage facility comprising more than 36,000sqm of warehouse space and associated car parking. Adjacent to the eastern boundary of the proposed facility is land zoned E2 Environmental Conservation which is known as Biodiversity Lot B (Lot B). OEH has reviewed the relevant documentation and provides the following comments. *OEH notes that the retaining wall along the eastern boundary of the site is proposed to be raised between 0.6-1m, and that landscaping and fencing will be installed just inside the boundary. It is unclear whether construction of the retaining wall will require works within the adjoining land. For example, the Siteworks and Stormwater Drainage Plan Sheets C412 and C414 show a batter to the retaining*	In relation to the comments from the Office of Environment and Heritage, Goodman wish to confirm that: ▪ Retaining wall construction will not require access or works from the adjoining land; ▪ There will be no works on Lot B; ▪ The conditions stipulated by the Office of Environment and Heritage are accepted and can be complied with as part of the proposed development.

wall sloping up to 5m within Lot B. OEH is concerned about the impact of the proposed works on Lot B and considers that works of this nature are inconsistent with the purpose of a biodiversity lot. *OEH recommends that conditions be imposed to protect Lot B during construction as follows:* ▪ *Prohibit construction works on the development site being undertaken from Lot B;* ▪ *Prohibit storage of materials, equipment, workers' vehicles or machinery on Lot B;* ▪ *Prohibit access to/from the development site and Lot B (e.g. by use of fencing and signage); and* ▪ *Prevent the escape of sediments and runoff from the development site to Lot B.*	
Resident Objection 1	
Dear Sir this letter is not to stop progress, or state significant development, it is about the potential significant danger that such an establishment could cause in such a central area in the case of an accident, or even worse, today we are having an existing real danger and not to decline any soon. TERRORISM.? Because the exhibition has being given to three City Councils, I am left to imagine that the so called dangerous goods are so dangerously bad and capable to affect a large area around the proposed site. Let us not be too naïve or greedy or ignorant. We need to know, what are the results of aerosol pollution, worst case scenario. What are the other flammable potentially toxic chemicals? What are the corrosive substances or chemicals? What is all the variety of dangerous bad goods going to be kept? To which we are supposed to prepare protection from. We need to be advised of what comprehensive protection. And that mean not only rush under the table and that's enough; And how far should we be from this proposed site to be safe in the case of any eventuality. Things do not only happen in China, Japan or first, second, or third world. We do not want to come to a tragic disaster experience. I would say that such storage should be located in an area away or substantially distant from intense peoples work and	The Preliminary Hazard Analysis (PHA) submitted with the application concludes that the facility would only be classified as a potentially hazardous facility. This is based on the identification of only one (1) incident with the potential to impact offsite, being a full warehouse fire. The fatality risk from a full warehouse fire at the site boundary is within the acceptable risk criteria and therefore the proposal is considered suitable for the site and the locality. In addition to the above, a response has been prepared by Core Design that addresses the concerns raised in the resident objection. This is annexed at Appendix 2 and addresses the following: 1. Impacts to society based on the classification of goods (i.e. Dangerous Goods); 2. Impacts on surrounding areas (initiated by accident, terrorism or other) from the facility; and 3. Facility design to mitigate 1 & 2. Further, tenant specific security will be provided including swipe cards and cameras to restrict unauthorized access and promote formal surveillance. Further details of tenant specific security will be confirmed during the detailed design stage.

residential places. Or deep subterranean well engineered to take 150% safety and ultimate comfortable capability of control. A second alternative would be to divide the warehouse in several smaller places. I ask that this my letter with my questions be answered. And if not answered I will have to search support through a petition.	
NSW Environment Protection Authority	
Based on the proposed storage quantity outlined in the EIS and the comments outlined in Section 4.2 of the EIS, that EPA is in agreement that Schedule 1 of the Protection of the Environment Operations Act 1999 will be triggered. Specifically, the scheduled activity "General Chemical Storage" is triggered when a facility has: *"the capacity to store more than 20 tonnes (pressurised gases), 200 tonnes (liquefied gases) or 2,000 tonnes (chemicals in any other form)".* *If the Department of Planning & Environment gives development consent for the proposed dangerous goods facility, the EPA will require the Proponent to submit a licence application to the EPA. Once submitted, the EPA will consider whether any specific conditions may need to be incorporated into the licence.*	The tenant, will, as per the conditions of the consent, obtain the necessary licence from the EPA prior to operation. Any specific conditions of the licence will be adhered to during the operation.
Penrith City Council	
I refer to your invitation to comment on State Significant Development Proposal No. SSD-6236 for a proposed Dangerous Goods Facility in the Fairfield Local Government Area. *In this regard, Council raises no objections to the proposed development.* *Thank you for the opportunity to review the proposal. Should you require any further information, please do not hesitate to contact me on 4732 7705.*	Council's response is noted and agreed.

Resident Objection 2	
I Perry Tomaniczka on behalf of the home owner Mrs Valeria Tomaniczka, relation, mother an 85 year old widower, whose second language is English and has great difficulty with such correspondence object on the grounds that the notification including the original was far from adequate. No attempt to contact the homeowner who is the immediate neighbour and therefore most affected in person as was done with other residents as has been recently discovered. Extreme difficulty with environment and planning website, which even now has the URL blocking 'robots.txtfiles" restricting access resulting in many failed attempts to lodge an online submission or view plans of development. On 20 May 2016 viewed plans at Penrith Council, found plans to be missing vital information, that the new development in no way resembles the original plan yet is missed in and relies on all the old information of the old consultancy reports which to be lacking and inaccurate that no consideration whatsoever taken into account for light pollution noise pollution, loss of outlook or depreciation for land owners or destruction of the aesthetics of the area as a small farming community. As this appears to be just a massive industrial factory / building.	The proposal has been prepared in accordance with the Secretary's Environmental Assessment Requirements (SEARs) dated 3 March 2016 (ref: SSD 7491). Additionally, a new package of consultant assessment reports has been prepared to assess the environmental impacts of the proposed on the surrounds and confirms that the application has acceptable impacts. Specifically, consideration has been given to the following matters: ***Light Pollution*** Lighting is proposed around the perimeter of the building for safety purposes, to ensure that there is a clear identification between the building, pathways and hardstand areas/roads. This is essential to ensure that the operation of the facility on a 24 hour, 7 day basis is safe for all staff and visitors, particularly during the evening. Attached at Appendix 4 of the EIS, is a lighting plan (OAK 3 DA 16(A) which shows the indicative location of: ▪ Car Park Lighting (approx. 5m high) ▪ Wall mounted lighting ▪ Light to underside of awning All external lighting will be in accordance with AS4282-1997. Conditions of any approval will also require compliance in this respect to ensure there is no adverse impact on surrounding properties. ***Noise Pollution*** A Noise Impact Assessment (**Appendix 10** of the EIS) has been undertaken by SLR Consulting Australia Pty Ltd to assess the potential noise impacts associated with the proposal in accordance with the *NSW Industrial Noise Policy (INP), NSW EPA, 2000, the Interim Construction Noise Guideline (ICNG), DECC, 2009* and *Assessing Vibration: A Technical Guideline, DEC, 2006*. The operational noise modelling for Lot 3B found no exceedances of the Noise Limits at the identified noise sensitive receivers. Cumulative impacts with the rest

	of Oakdale Central were also found to be below the defined Noise Limits. Therefore, no operational noise mitigation measures are required. Further, off-site traffic movements associated with Lot 3B are predicted to have a negligible impact on road traffic noise levels in the vicinity of the main access routes of Lenore Drive and Old Wallgrove Road, given the existing comparatively high volume of traffic on these arterial roads. It is therefore confirmed that the construction and operational noise generated by the proposed development will not exceed the noise levels for the approved development under SSD 6078. ***Visual Amenity*** Measures have been taken to ensure that the building provides an optimal aesthetic outcome. This is sought to be achieved through the use of various colour schemes and the application of earthy tones with cool and warm greys as the main colour palette for the structural components. Overall, the proposal presents as a modern facility that is consistent in architectural merit and features with the approved and operational facilities in the Oakdale Central estate. Suitable separation is achieved from surrounding properties with sufficient buffer zones maintained. Overall, the proposed design is considered consent with the emerging nature of development within the Oakdale Central estate and surrounding employment lands. Moreover, the proposal represents a reduction in bulk and scale from that of the approved Lot 3 warehouse, and exhibits a similar height. The proposed warehouse is considered highly appropriate for the industrially-zoned land.
Department of Industry Resources & Energy	
Following the Department of Planning & Environment's request for SEARS for this proposal, the GSNSW advised the proponent (10 February 2016) that it should consult with CSR Building Products, the holder of mining lease ML 1636, and with the operator of the Austral	Guy Smith of Goodman emailed Wayne Pasalich of CSR on 31 May 2016 outlining the particulars of the proposal and requested comments CSR may wish to provide. To date a response is yet to be received (refer attached email).

Horsley Park Brick Plant, regarding any potential impacts associated with the proposed development, and that records of such consultation be included in the EIS. The current EIS does not contain any indication that that advice was acted upon. The GSNSW therefore reiterates that advice, given that the proposal occurs within the Transition Area for ML 1636 (PGH Horsley Park Brickworks and approximately 700 m from the Austral Horsley Park Brick Plant.	As Oakdale Central, including warehouse 3B, is a joint venture with Brickworks, the owner of Austral Bricks and the operator of the Austral Horsley Park Brick Plant are aware of the proposed development.
NSW Government Heritage Council of New South Wales	
The Heritage Division of the Office of Environment and Heritage (OEH), as delegate of the Heritage Council of NSW, has reviewed the documentation, specifically the report entitled: ▪ *'Environmental Impact Statement Proposed Dangerous Goods Facility, Lot 3 Oakdale Central, Horsley Park', (the EIS) prepared by Willowtree Planning Pty Ltd and dated April 2016.* *I note that, although the Heritage Council has requested a historical archaeological assessment to be prepared as part of the EIS, this requirement was not included in the SEARs for the project. As a result no historical archaeological assessment has been provided with the EIS.* *However, the Heritage Division is also aware that a historical archaeological assessment has previously been prepared for the overall Oakdale Concept Development Plan entitled: 'Historical Archaeological Assessment and Heritage Management strategy: Oakdale Concept Plan Kemps Creek NSW' dated December 2007, prepared by Australian Museum Business Services. This assessment identified three archaeological items, none of which were located in the study area for the current proposal.* *The EIS also notes that a Development Application for bulk earthworks to the site has been approved by Fairfield City Council (DA652.1/2013) and these works have been completed. As the site has been cleared and levelled to provide a platform for development this process would have resulted in the removal of heritage items*	The response the NSW office of Environment & Heritage is noted and agreed.

that may have been present.

Therefore, it is considered that due to the approved clearing and levelling of the site which has been completed no additional historic heritage provisions are required for the development.

NSW Department of Planning & Environment

1. *Confirmation should be provided on the maximum quantity of dangerous goods (DG Classes 2.1 aerosols, 3 flammable liquids, 8 corrosive and 9 miscellaneous) proposed to be stored in Warehouse 3B, given that the quantities listed in Table 4 of the EIS, Section 6.3 of the EIS and Table 3.1 of the PHA are inconsistent.*

The maximum quantity of dangerous goods to be stored is consistent with Section 6.3 of the EIS and Table 3.1 of the PHA. This is as per the following extract from the PHA provided at Appendix 8 of the EIS:

Table 3-1: Dangerous Goods Stored at the RB Site

CLASS	PACKING GROUP	QUANTITY (L OR KG)	DG LOCATION
2.1 (aerosols)	N/A	1,000 tonnes (of LPG in aerosols) equivalent to 12,000 pallets of aerosols	DGS2
3	II & III	365 m^3 - 2,000 pallets	DGS1
8	II & III	324 m^3 – 1775 pallets	General warehouse (not defined at this stage)
9	III	74 m^3 – 405 pallets	

2. *From Figure 3-2 of the PHA, it is understood that a 3,580 m2 temperature controlled store, designed for 6,251 pallets, will operate within Warehouse 3B. Further information should be provided on the following:*

a) type and quantity of goods proposed to the stored in the temperature controlled store;

b) the refrigeration process (the type and quantity of refrigerant, in particular) employed for cooling of the temperature controlled store; and

c) whether a risk assessment in relation to the refrigeration process was performed as part of the PHA.

a) Dangerous goods will not be stored in the temperature controlled store but rather this has been designed for the storage of pharmaceuticals such as nurofen which require the temperature to be <25^{o}C.

b) Goods proposed to be stored in the temperature controlled store do not include dangerous goods and therefore have not been included within the scope of the PHA.

c) No dangerous goods are proposed to achieve refrigeration and therefore the refrigeration process has not been included within the scope of the PHA.

d) As there has been no indication of DGS being required in the refrigeration system, a risk assessment in relation to refrigeration process is not within the scope of the PHA.

3. *From Section 4.3 of the PHA, it appears that scenarios involving the release of toxic combustion products have not been considered. As such:* a) *further information should be provided on the types and properties of aerosol products (insecticides which are toxic, for example) proposed to be stored in Warehouse 3B, given that insufficient information was provided in the EIS and PHA. In addition, clarification should be provided on whether the quantity and properties of product, in addition to the LPG propellant, was taken into consideration in the PHA. In particular, if significant quantities of insecticides are proposed to be stored in the warehouse, have the impacts of toxic combustion products or toxic fumes been considered in the PHA (as outlined in Section 5.3.1 of HIPAP No. 6)?* b) *further information should be provided on the type of packaging for products stored in the whole warehouse in relation to impacts from full warehouse fire (Section 4.3.5 of PHA). In particular, if a significant quantity of plastics will be used in the packaging of products, have the impacts of toxic products arising from the combustion of packaging been considered in the PHA? For toxic releases, in addition to fatality risk, the injury and irritation risk of toxic exposure should be assessed against toxic exposure risk criteria outlined in Section 2.4.2.2 of HIPAP No. 4.*	a) No Class 6.1 materials are being stored within the warehouse; hence, toxic products were not considered as a separate incident. Incomplete combustion may result in toxic byproducts (i.e. NOxs and CO); however, these are present in any warehouse fire which are not required to be assessed by a PHA; hence, have not been included in the assessments. However, due to plume rise the dispersion of smoke from a warehouse fire would disperse prior to impact on surrounding areas. b) As noted above, toxics are not stored; hence, toxic smoke based on storage of these materials has not been considered. Also noted, toxic by-products from incomplete combustion are present in all warehouse fires which are not required to be assessed by a PHA; hence, have not been included in the assessment.
4. *From Section 4.3 of the PHA, it appears that the scenario involving a fire of the whole dangerous goods storage area (Class 2.1 aerosols, in particular) on the eastern side of Warehouse 3B have not been considered. Such a fire would be a luminous fire which may extend beyond the site boundary and/or extend to the general warehouse storage area. As such, further information should be provided on whether this scenario was considered in the PHA, with justification on why this scenario was not carried forward into risk assessment.* *A risk assessment against the criteria for damage and accident propagation is required (as outlined in Section 2.4.2.3 of HIPAP*	Given a full warehouse fire has been considered, it is not considered relevant to independently consider a separate fire on the eastern side of the warehouse as this would exhibit lesser impact than the full warehouse fire. The comment stating the LPG would be a luminous fire is correct if an LPG pool fire is burning. Aerosol canisters do not burn, they expand and rupture based on heat from surrounding fires. As the aerosols rupture they explode (burning a minor quantity of LPG) resulting in rocketing cans. While this small explosion may be luminous this is overshadowed by the burning of large quantities of plastics, cardboard and other packagings which results in significant amounts of smoke resulting in a non-luminous fire. As noted, a full warehouse fire has been assessed which includes all forms of fire

No. 4) if heat radiation levels of at least 23 kW/m2 may reach neighbouring properties. Furthermore, clarification should be provided on whether the scenario of fire spreading from the dangerous goods storage area to the general warehouse storage area (accident propagation) has been considered in the PHA, given that a fire-rated wall will not be installed to separate the two areas, and the separation distance between both areas is not specified in the PHA.	spread (as this mechanism is required for a full warehouse fire to occur). In addition, the warehouse design has progressed since the submission of the PHA which has resulted in a 240/240/240 FRL wall being included separating the Class 2.1 from the general warehouse. This was to be included in the Final Hazard Analysis. Separation between the two areas is not required by AS3833-2007 for retail distribution centres.
5. *It is understood that in-rack sprinklers designed in accordance with FM Global Data Sheet 731will be installed within the aerosol storage area. However, it is not clear how the proposed sprinkler system can safeguard the risk of accident propagation. As such, further information should be provided on the design and capability of the sprinkler system, in consideration of the following:* a) *preventing the escalation of fire from aerosol pallet/racking fire to fire of the whole aerosol storage area; and* b) *preventing the escalation of fire from fire of the whole aerosol storage area to full warehouse fire.*	Sprinklers are designed to control and suppress fires. FM Global data sheets are based on testing conducted in their testing facilities which have demonstrated prevention of fire propagation provided compliant design and installation. FM Global (as an insurer) will not insure a system which is not covered by their data sheets as a non-compliant configuration has not been shown (by their testing) to control and suppress a fire. Compliance with FM Global Data sheet 7-31 provides assurance that incident propagation will not occur. In addition, the area is protected by ESFR systems according to FM data sheet 2-0 and 8-9 which have also been shown to control and suppress fires preventing incident propagation.
6. *Further information should be provided on how the relevant qualitative risk criteria, outlined in Section 2.2 of HIPAP No. 4, are satisfied. In particular, justification should be provided on the decision to use chain-wire fencing (mesh caging) as opposed to fire-rated walls to separate the Class 2.1 aerosol storage area from the general warehouse storage area, taking into account considerations in items 4 and 5 above (i.e. all 'avoidable' risks should be avoided)*	The Work Health and Safety Regulation requires the risk to be assessed and managed accordingly. The minimum acceptable level of risk assessment is compliance with an Australian Standard. The warehouse area has been designed according to AS3833-2007 as a retail distribution centre. Clause 3.5.8 of AS3833-2007 requires aerosols in retail distribution centres to be contained with a strong mesh enclosure (i.e. caged). Therefore, compliance with this standard is considered to achieve the minimum requirement of the WHS and would be acceptable. Notwithstanding this, the design has progressed since submission of the PHA which has resulted in the upgrading of this wall to a 240/240/240 FRL wall. This change would have been captured in the Final Hazard Analysis.
7. *Further information should be provided on the maximum number of aerosol cans involved in a fire, assumed in the modelling of consequences in relation to aerosol fires, with justification on*	The number of aerosols contributing to a fire are not considered individually as this is an unnecessarily complicated way to assess the consequence. If the methodology in Appendix B had been reviewed in detail, it would have been clear that the fire scenario is modelled on an assumed area. For a sprinkler controlled

how this number was arrived. In addition, further information should be provided on how the impacts from such fires are compared with the consequences of actual aerosol warehouse fires, for example, the Stiller Warehousing and Distribution facility fire in the UK in 2010. This major incident involved 7,500 aerosol cans, resulted in flames with a height of 60 m and heat radiation which could be felt more than 400 m away. In comparison, Table 4 of the EIS indicates that 12,768 pallets containing aerosols cans will be stored within Warehouse 3B.	fire this is assumed to be a 9m diameter fire based on second array sprinkler activation, it also assumes the whole area is burning. This is excessively conservative as in a 9m diameter area approximately 50% is noncombustible aisle. Furthermore, the contribution of LPG to the fire is small as LPG is a minor component in aerosols. The burning rate of this fire scenario is predominately based on the burning of packaging. Review of Appendix B of the PHA would show that a full warehouse fire (which would dwarf the incident of the LPG area on fire) would result in a fire with a height of 127 m. This is excessively conservative when considering the conservatism in the models, etc.
8. *From Section B4 in Appendix B of the PHA, it is understood that the consequence modelling for aerosol pallet racking fire was performed using a spreadsheet calculator (SSC), as described in Section B2. The input parameters into the SSC are the equivalent fire diameter and the LPG burning rate. The equivalent fire diameter is estimated as 9 m, assuming successful activation of the early suppression, fast response (ESFR) sprinkler. However, the basis on the use of this area was not provided. As such, further information should be provided on the relationship between this area and the number of aerosol cans that could be involved in a fire, taking into account considerations in item 7 above.*	Familiarity with warehouse design and sprinkler systems would indicate that sprinklers are spaced in square arrays of 3m by 3m. Therefore, a secondary sprinkler activation would result in a 9m diameter. As noted in previous responses, the 9m area is assumed to be on fire; however, familiarity with warehouse operations would indicate that for 4m of racking, there is 3m of aisle. Therefore, approximately 50% of the 9m space is non-combustible aisle. In addition, familiarity with consequence models would indicate that models are not predicated on the number of aerosols. They are based on fuel loads (defined by the energy density of products) or fire areas. As noted above, the methodology adopted results in a flame height roughly 2 times that of observed aerosol fires.
9. *From Section 4.10 (page 26) of the EIS it is understood that the proposed height of Warehouse 3B is 13.7 m. As such, based on an average pallet height of 1.5 m, at least 5 pallets in height would be stored in racking. The consequence modelling for aerosol pallet racking fire arrived at an estimated flame height of 16.5 m. However, from the information provided in the PHA report, it is not certain whether this flame height was calculated:* *a) from ground level, or* *b) from the height of the pallet placed highest on the pallet raking, or* *c) otherwise.* *As such, confirmation should be provided on whether the consequence modelling for aerosol pallet racking fire, performed using the SSC, took*	The aerosol fires are predicated on a sprinkler controlled fire; hence, would be controlled within the point of the fire by the in-rack sprinklers as demonstrated by compliance with FM Global Data Sheet 7-31. The location of the pallet fire is taken to be at ground level as the most conservative location as increased hypotenuse distance from a pallet located at height results in attenuation of radiant heat reducing the impact on an observer. Other scenarios were not reviewed as the most conservative scenario was reviewed (which showed no off site impact). Please refer to previous commentary regarding an aerosol fire.

into consideration the differences of the scenarios (a, b and c above) in the calculation of heat radiation impacts at ground level. *In addition, further information should be provided on the number of pallets assumed in the modelling of consequences in relation to aerosol pallet racking fire, with justification on how this number was arrived, taking into account considerations in item 7 above.*	
Attachment 1.1 Hazards *Please provide a response to the issues raised in the hazards advice provided to Goodman on 15 June 2016.*	The issues raised in the hazards advice provided on 15 June 2016 have been addressed in the above sections of this Response Matrix.
Attachment 1.2 Landscape Plan *The Landscape Plan proposed buffer planting to the proposed biodiversity lot. Please identify the species proposed for planting within the buffer area and identify how this vegetation will integrate with the species contained in the biodiversity lot.*	Appropriate species will be used in buffer planting, consistent with the treatment of the opposite interface with Lot 1C. These species include: ▪ Dianella revolute ▪ Hardenbergia violacea ▪ Poa labillardieri ▪ Themeda triandra ▪ Corymbia maculate
NSW Department of Primary Industries	
The Department has reviewed the Environmental Impact Statement (EIS) and provides the following comments: ▪ *The EIS has not specifically addressed potential groundwater impacts. The proponent should undertake an assessment of potential groundwater impacts associated with the development.* ▪ *Should excavation associated with minor regrading to facilitate construction of Warehouse 3B have the potential to intercept or affect groundwater the proponent should advise DPI water and a license to carry out works may be required*	Two geotechnical investigations were carried out by GHD in December 2007 and Douglas Partners in 2007 with both stating that groundwater is only likely to be encountered within the alluvial material adjacent or within the creek. As all lots are away from the creek and proposed pad levels of the lots are well above the creek level the likelihood of encountering ground water during civil works for each lot is considered negligible.
Fairfield City Council	

Traffic and Transport ▪ *Details of all traffic and transport types and volumes likely to be generated during construction and operation, including a description of haul routes.* ▪ *A traffic impact assessment of predicted impacts of traffic generation on the safety and capacity of the surrounding road network and access points, using current traffic counts and modelling of nearby intersections.* ▪ *details of the proposed site access, including detailed consideration of access options, justification for the proposed locations of main access points, and compliance with Australian Standards.*	Details of traffic generation as a result of the proposal as well as details of site access, have been provided within the Traffic Impact Assessment at Appendix 7 of the EIS.
Hazards and Risks *Under the 'Hazards and risks' heading, there is reference to a Preliminary Hazard Analysis (PHA) being prepared. As a PHA has previously been prepared, presented and assessed, a further PHA is unnecessary unless the volumes of materials referred to in the previous report has changed. In this case, a statement to that effect will be adequate.*	Noted and agreed.
Noise & Vibration *Under the 'Noise' heading, there is no requirement for a post development report.*	An Operational Noise Management Plan (NMP) would be prepared for the Oakdale Central Lot 3B site following approval, consistent with the NMP for Oakdale Central Lots 1C and 2B (SLR report 670.10585, dated 4 June 2015). This would include details of noise management measures, a noise monitoring program and compliance assessment protocol.
Soils & Water *Under the 'Soil and water' heading, there is no reference to:* ▪ *A Sediment and Erosion Control Plan; or,* ▪ *A storm water isolation valve for the operational site.*	Sedimentation and Erosion Control Plans for Lot 3B are provided as drawings C240 and C241. All stormwater from lots drains into the adjacent detention basin which also acts as a bio-retention basin to treat the water to Council requirements. Prior to discharging into the basin all water passes through a GPT to treat the water. Based on stormwater management proposed, an isolation valve is not considered necessary.

Air Quality *Under the 'Air quality' heading, there is reference to controlling dust during construction. This should be included in the Sediment and Erosion Control Plan.*	The treatment of dust during construction will be thoroughly dealt with in the Construction Environment Management Plan which concerns the construction of WH3B. Dust suppression through water spray will be utilised to maintain acceptable levels of dust. Where completed earthworks are left for a period of over one (1) month, a polymer dust control spray will be applied to the surface.
Waste *Under the 'Waste' heading, there is Plan of Management to cover operational waste. No waste storage area is shown on plans provided. Further details on waste management/storage should be sought.*	Two (2) dedicated areas for the storage of waste have been provided on site in the location shown on the revised Site Plan (**Appendix 4**).
Urban Design & Visual *Under the 'Visual amenity' heading, there no reference to the intrusive impacts of onsite lighting. This can be addressed by the preparation of an intrusive lighting report.*	Lighting is proposed around the perimeter of the building for safety purposes, to ensure that there is a clear identification between the building, pathways and hardstand areas/roads. This is essential to ensure that the operation of the facility on a 24 hour, 7 day basis is safe for all staff and visitors, particularly during the evening. Attached at Appendix 4 of the EIS, is a lighting plan (OAK 3 DA 16(A) which shows the indicative location of: ▪ Car Park Lighting (approx. 5m high) ▪ Wall mounted lighting ▪ Light to underside of awning All external lighting will be in accordance with AS4282-1997. Conditions of any approval will also require compliance in this respect to ensure there is no adverse impact on surrounding properties. It is considered that an intrusive lighting report is not required on this basis given the established industrial character of the precinct.
Water NSW	
Protection of Water NSW Infrastructure	

The supporting EIS lacks consideration of genuine risks associated to the pipelines associated with this development. *It is noted that a swept path analysis of the proposed access and internal roads has been undertaken as part of the Traffic Report. This analysis and report lacks information as to the risk of damage to Water NSW's pipelines form potential vehicle accidents and the associated transportation of dangerous goods, particularly as the top of the building platform will be directly adjacent to and higher than No.1 Pipeline.*	Whilst there is a retaining wall along the northern boundary of Lot 3 adjacent the SCA pipeline it should be noted a crash guard rail to comply with Australian Standards will be constructed along with a 2.4m high chainwire fence on top of this wall. Given the low speed nature of the hardstanding area adjacent this wall the risk of vehicles crashing through the guard rail and chainwire fence is deemed negligible. Also the risk of materials etc falling onto the pipeline is deemed negligible.
This is particularly an issue at the north western area of the site with vehicles travelling around the corner from the access road to the service bays. In addition there is no clarification that the traffic collision guards and fencing would suitably protect the pipelines in this instance. We request that the proponent consults with WaterNSW in the final design of the traffic collision guards.	A Condition of Approval requiring consultation with WaterNSW to be undertaken in relation to the collision guards would be agreed to. It is proposed that this Condition require consultation and WaterNSW approval to be obtained prior to the issue of the Occupation Certificate.
The Preliminary Hazard Analysis accompanying the EIS (Appendix 8) indicates that although the potential for a full warehouse fire is low the radiant heat contours would impact over the site boundary (Figure 5-2). This would include WaterNSW's Warragamba Pipeline located adjacent to the north of the site. The analysis does not take into consideration any effect an event of this nature would have on those pipelines.	The radiant heat impacts that are observed over the site boundary are at 4.7 kW/m^2 which is the level at which injury can occur or fatality from sustained exposure. The radiant heat level required to result in structural damage to metal after sustained exposure (>30 minutes) is 23 kW/m^2. Due to the dynamics of a large fire such as a full warehouse fire, the radiant heat that can be emitted is <20 Kw/m^2 due to shielding from thick black smoke generated from the fire from insufficient oxygen to maintain complete combustion (i.e. no formation of carbon – soot). Therefore, there would be no impact on the pipeline from this incident.
The EIS does not make clear the reason for increasing the height of the retaining walls adjacent to the site boundary with the pipelines form between 0.6 and 0.8m. During the construction of the retaining walls there is a risk of accidental damage to WaterNSW's pipelines adjacent to the site.	The height of retaining walls responds to final site levels and building design. Retaining walls have been set back from the site boundary to allow for survey monitoring, maintenance of the wall face and to enable repair in the extraordinary circumstance that any walls elements are damaged by trucks.
Water NSW requests that the proponent is required to: ▪ *Implement all practical measures to prevent damage to WaterNSW's water supply infrastructure that may result from the construction or operation of the project.*	These requirements are noted and it is confirmed that measures to prevent damage to WaterNSW infrastructure will be addressed in the detailed Construction Environmental Management Plan.

▪ *Install temporary traffic barriers during construction wherever construction activities are undertaken immediately adjacent to Pipeline corridors.* ▪ *Repair or pal all reasonable costs associated with repairing WaterNSW infrastructure that is damaged by the project.*	
<u>Security Fencing</u> *It is noted in the Civil Plans (Appendix 5) that a chain wire boundary fence is proposed along the common boundary of the site of the pipeline corridor. Security fencing is required to minimise the potential for the public to access the pipelines and the associated corridor. This fencing should be constructed to Water NSW standards at 2.1 metres high, of chain mesh with 3 strand barbed wire in addition, and installed along the entire length of the boundary of the pipeline corridor and the development site.*	It is considered acceptable for a Condition of approval to be enforced requiring the provision of fencing adjacent to the pipeline corridor that is in accordance with the requirements of WaterNSW.
Water NSW Would appreciate being involved in further assessment of the Dangerous Goods Facility proposal including commenting on draft conditions of approval.	Noted.
Safe Work NSW	
Should the Department determine to approve the modification, there are no specific issues from a work safety point of view that would preclude approval, provided the following conditions are included in the consent: *1. Prior to finalising the detailed design of the safety related controls, the applicant must carry out an assessment of both on site and off site risks, particularly with regard to potential major incidents. The assessment should be developed in consultation the Major Hazard Facilities team at Safework NSW and in accordance with Chapter 9 of the WHS Regulation 2011. The risk assessment must take into account, but not be limited to, explosions, toxic products of combustion and their behavior during atmospheric inversions in the event of fire.*	Noted and these proposed conditions are agreed to.

2. *Prior to finalising the detailed design, the applicant must consult with the Major Hazard Facilities Team of Safework NSW with regard to the safety systems to be incorporated into design to ensure that the risks have been reduced So Far As is Reasonably Practicable to comply with WHS legislation.*	
Endeavour Energy	
Endeavour Energy has no objection to the proposal. *The Developer must make application for electricity supply to their development via Endeavour Energy's Network Connections Branch.*	Noted. Application for electricity supply will be made via Endeavour Energy's Network Connections Branch.
Fire and Rescue NSW	
A fire incident involving the dangerous goods package stores would present significant challenges to first responders with regard to safe and effective incident management. The following aspects of the development are recommended to be addressed. 1. *That a condition of consent be imposed requiring the proponent to undertake a fire safety study (FSS) in accordance with the principles and procedures detailed in Hazardous Industry Planning Advisory Paper No. 2 (HIPAP No. 2) and that the FSS report be submitted to FRNSW for approval.* 2. *In addition to the usual requirements of HIPAP No. 2, that the FSS also specifically address the following matters:* ▪ *The configuration and capacity of smoke hazard management within the general warehouse and dangerous goods package stores. In particular, that the smoke exhaust system is initiated automatically and that the rate of smoke exhaust will provide sufficient tenability (for a non sprinkler controlled fire of a magnitude and period of time agreed to by FRNSW) that will enable first responders to undertake*	No objection is raised to the imposition of Conditions of approval in line with the recommendation of Fire and rescue NSW. It is noted that relevant matters have been addressed in the Fire Safety Statement provided at Appendix 12 of the EIS.

effective internal offensive fire attack operations.

- *The provisions of Australian Standard (AS) 2419.1-2005: Fire Hydrant Installations (Clause 1.1) are not applicable to special hazards. Therefore it is recommended that the fire hydrant system have a minimum fire flow rate capability that is determined in consultation with and agreed to by FRNSW.*

- *To maximize fire hydrant system integrity, that the hydrant system's ring main be located outside of the building envelope and underground.*

- *That the package stores housing dangerous goods be fire separated from each other and the general warehouse by walls with a minimum fire resistance level of 240/240/240.*

- *That the potential for fire spread from the subject building to other adjacent buildings be assessed and appropriate mitigation measures implemented that minimise the risk of fire expansion.*

- *That the configuration of all hydraulic fire systems be configured so that system redundancy and reliability is maximised. In particular, sprinkler systems are not connected to the building's fire hydrant system.*

- *To enhance egress options available to occupants and first responders, that egress provisions within package stores that house dangerous goods comply with the deemed to satisfy provisions of Volume One of the NCC.*

- *That sprinkler system infrastructure (such as tanks and pumpsets etc) be located to ensure that they will not be subject to damage should building collapse occur.*

- *That any insulated sandwich panels used be of a type that is suitable to their installed location with regard to fire exposure and minimising fire propogation.*

That any performance requirements of the National Construction Code (NCC) that are intended to be addressed by formulation of an alternative solution is consistent with any specific facility design requirements that arise from the FSS.	
Transport for NSW	
Swept Paths of Heavy Vehicles *The swept paths of heavy vehicles shown in the figures for the Traffic Assessment Letter Report require clarification. The swept path of B-doubles has been adopted for the access and some internal movements. However, the swept path of 19m semitrailers was used for the movements at the loading docks. Details of any coupling/de-coupling areas should also be identified and shown on the plans.* *Given the proximity of the site to the Sydney Motorway network, subject to future government policy on HPV (High Productivity Vehicle) routes, the proposed development may be able to take advantage of the productivity benefits that High Productivity Vehicles offer. Therefore, it is suggested that a PBS Level 2B (ie. Up to 30m in length) vehicle turning path is adopted to design the site access and internal circulation roads at this stage to avoid changes to access arrangements in the future.* *TfNSW requests that the swept path of maximum size of heavy vehicles that are envisaged to access the site be adopted for the design of the site access and internal area including the loading dock area to ensure sufficient space exists on the hardstand apron. It is also requested that routes of heavy vehicles between the site and the state road network should also be identified.*	The location of on-site un-coupling areas is a detailed matter that can readily be resolved as part of Construction Certificate documentation, subject to a suitable condition of consent in accordance with the following: *A nominated coupling / de-coupling area shall be nominated on the plans, prior to issue of a Construction Certificate*. TfNSW' comments in relation to High Productivity Vehicles (HPV) are noted, however (at this stage) access by these vehicles is not proposed. In this regard, the largest size of vehicle envisaged to access the site is a 26m B-Double. Swept paths demonstrating access to the site by vehicles of this size were included in submitted Traffic Impact Statement. Egress paths from the shared egress driveway to Milner Avenue are provided in the separate Traffic Impact Statement prepared in relation to the S96 for other warehouses included in Lot 3. In any event, this is also a detailed design matter that can be readily conditioned in accordance with the following: *Prior to issue of a Construction Certificate, swept paths shall be prepared by a suitably qualified traffic engineer confirming the proposed driveways comply with AS28990.2 for the largest vehicles requiring access to the site*. Milner Avenue is expected to be an approved B-Double route. As access to the site is only proposed for B-Doubles, further information in relation to the specific routes of these vehicles is unwarranted.
Construction Traffic Management Plan *Prior to the commencement of any works on the site, a Construction Traffic Management Plan (CTMP) prepared by a suitably qualified person shall be submitted to the Principal Certifying Authority (PCA). The Plan must be prepared in consultation with Council and Roads*	Noted. The preparation of a CTMP would be expected to form a standard condition of consent. Relevant Traffic Control Plans (TCPs) should have consideration for other construction activities in the locality (at the time of works) as is standard protocol in the development of any TCP.

and Maritime Services. The CTMP should specify any potential impacts to traffic, pedestrian, cyclists, bus services within the vicinity of the proposed site from construction vehicles during construction. Any potential impacts to pedestrian access or public transport infrastructure including bus stops should also be specified in the CTMP. *The CTMP shall include the cumulative construction impacts of all the projects adjacent to the site. The Applicant shall submit a copy of the CTMP to Council, prior to the commencement of work.*	However, the cumulative impacts of all construction works adjacent to the site is not the responsibility of any one development and the onus on such a study would lie with Council and/or RMS. Furthermore, a cumulative assessment would be unwarranted where the CTMP was to demonstrate the construction traffic volumes are less than the operational traffic volumes of any particular site.
Traffic Demand Management *The proponent should be conditioned to prepare a Workplace Travel Plan to encourage non-car based transport. The Travel Plan should outline measures to encourage public and active transport trips including:* ▪ *Provision of bicycle parking and end of trip facilities for pedestrian and bicycle riders. These facilities could also provide amenity for heavy vehicle drivers;* ▪ *Provisions of footpath and shared path within the site and along site frontages to provide connectivity, safety and accessibility for pedestrians and bicycle riders to existing and future networks and public transport facilities; and* ▪ *Other travel demand measures, where practicable, such as employee incentives, flexible work times and car share schemes.*	Noted. Preparation of a Workplace Travel Plan could form a condition of consent, if absolutely necessary. However, it is noted that the public transport accessibility of the site generally is relatively limited and surrounding roads will carry a high proportion of heavy vehicles thereby discouraging on-street cycling. Therefore, such a document may have limited effect and the need for its preparation is questioned. It is also noted that a dedicated on-site footpath is already proposed between Estate Road 2 and the subject building. For site safety reasons, pedestrian movements within the hardstand areas and egress driveway to Milner Avenue is discouraged and therefore provision of pedestrian paths elsewhere on-site would be contrary to the intent of these areas.