



1. SUBMISSIONS SUMMARY MATRIX

SUBMITTER	VIEW	ONLINE FORM / LETTER / PETITION	ISSUES / COMMENTS																	
			TRANSPORT & TRAFFIC			ENVIRONMENTAL										ENGINEERING			CONSTRUCTION PHASE	
			TRANSPORT	TRAFFIC		NOISE			WATER QUALITY		AIR QUALITY		CONTAMINA TION	BIODIVERSITY		FLOODING MODELLING	STORMWATER MANAGEMENT	SERVICING	EXTENDED HOURS	OTHER
			ACCESS ARRANGEMENTS	GENERATION	LOCAL ROAD NETWORK	MODELLING	RAIL NOISE	NIGHT TIME NOISE DISTURBANCE	TREATMENT & SEDIMENT CONTROL	WATERWAYS LITTLE CREEK	IMPACT ASSESSMENT	LOCOMOTIVE EMISSIONS	REMEDIA TION STRATEGY	BDAR	LOSS OF REMNANT VEG					
LOCAL GOVERNMENT																				
PENRITH CITY COUNCIL	OBJ.	LETTER	*	*	*	*	*	*	*	*	*		*	*		*	*		*	*
GOVERNMENT AGENCY																				
NSW EPA	COM	LETTER				*	*	*	*		*	*	*				*			
NSW DPIE	COM	LETTER	*	*	*	*	*	*	*							*	*		*	
NSW DPIE - ENVIRONMENT, ENERGY AND SCIENCE GROUP	COM	LETTER												*						
NSW DPIE - LANDS WATER AND DEPARTMENT OF INDUSTRIES (DPI)	COM	LETTER							*	*										
NSW TRANSPORT, ROADS AND MARITIME SERVICES	COM	LETTER																		
TRANSPORT FOR NSW	COM	LETTER		*	*	*	*	*												
NSW RURAL FIRE SERVICES	COM	LETTER																		
AIR SERVICES AUSTRALIA	COM	LETTER																		
SYDNEY WATER	COM	LETTER																*		
ENDEAVOUR ENERGY	COM	LETTER																*		
SPECIAL INTEREST GROUP																				
BLACKTOWN & DISTRICTS ENVIRONMENTAL GROUP INC	OBJ.	ONLINE FORM							*	*					*					
CORPORATE AND INDIVIDUAL																				
CHARTER HALL	OBJ	LETTER				*					*					*				*
NSW PORTS	SUP.	LETTER																		
EMMANUEL STRATIOTIS	SUP.	ONLINE FORM	*																	
CON DIAKOS	SUP	ONLINE FORM	*	*	*															
TOTAL BY SUBMITTER TYPE																				
LOCAL GOVERNMENT			1	1	1	1	1	1	1	1	1		1	1		1	1		1	1
GOVERNMENT AGENCY			1	2	2	3	3	3	4	1	1	1	1	1		1	2	2	1	
SPECIAL INTEREST GROUP						1				1					1					
CORPORATE AND INDIVIDUAL			2	1	1						1					1				1
TOTAL BY ISSUE			4	4	4	5	4	4	5	3	3	1	2	1	1	3	3	2	2	2



2. LOCAL GOVERNMENT SUBMISSION

2.1 PENRITH CITY COUNCIL

LOCAL GOVERNMENT - PENRITH CITY COUNCIL					
KEY ISSUE	DETAILED ISSUE	ITEM #	SUBMISSION COMMENT	PROPONENT RESPONSE	CHANGE
PLANNING					
	ECONOMIC BENEFITS	1	The positive economic benefits of the proposal and potential employment generation are recognised. To this extent the site location and use of heavy rail infrastructure for freight transport is supported.	Noted	
		2	While most of the issues below primarily relate to technical matters (traffic, stormwater management, noise) these issues raise the question as to whether the existing local and regional road infrastructure is adequate for this site to be suitable without significant upgrades to avoid adverse unreasonable impact to the local community.	Addressed in detailed discussion on each issue below	
TRANSPORT					
	ACCESS ARRANGEMENTS	3	The Traffic and Transport Assessment (TTA) prepared by Bitzios, dated 18 April 2019 indicates that all vehicular access including B-double tucks will be via Lee Holm Drive and Forrester Road, via Glossop Street and Mamre Road to the M4 Motorway. With the exception of Mamre Road, the proposed access route relies solely on local roads, predominantly residential streets. This is totally unacceptable from a road safety and amenity perspective and is raised as a significant concern.	In response to concerns raised regarding the use of Lee Holm Road for heavy vehicle access and egress a detailed truck route assessment has now been undertaken to reassess the proposed access arrangements presented in the EIS (Option 1).  Three (3) additional Options (2-4) have been considered to ascertain the optimal route that: <ul style="list-style-type: none"><li>has the least impact on the local road network and amenity taking into account operational, safety and local impacts on the network and adjacent land uses, and</li><li>addresses the submissions issues raised by PCC, DPIE and the local community.</li></ul> The detailed results are presented in Bitzios Consulting Traffic and Transport Assessment - Post Exhibition Version at Appendix 4  The four options considered were: <ul style="list-style-type: none"><li>Option 1 - EIS advertised option - trucks utilising Lee Holm Road primarily via Christie Street, Forrester Road and Glossop Street;</li><li>Option 2 - Trucks entering and exiting via Lee Holm Drive primarily via Christie Street and Werrington Road;</li><li>Option 3 - Trucks entering and exiting the site at Forrester Road (using Harris Street westbound as entry route and Forrester Road - Glossop Street for the egress route;</li><li>Option 4 - Trucks entering and exiting the site at Forrester Road with Glossop Street / Forrester Road as the nearest intersection accommodating inbound and outbound movements.</li></ul> Each option has included an assessment of impact of the development on key intersections using SIDRA. For all assessed intersections the Level of Service (LoS) and Degree of Saturation (DoS) were compared between the Base Case and the With Development cases. At all intersections there was no change in intersection LoS and DoS increased by a maximum of 5% when the site's truck traffic was added.  Option 4 clearly has the best site access and transport routes to meet the operational needs of the Freight Hub and to minimise impacts on the local road network and surrounding area.  The intersection analysis confirms Option 4 provides the least impacts to surrounding intersections, uses Classified State and Regional Roads that have been designated for heavy vehicle traffic and regional transport connections. Option 4 also has the least impacts on residential property amenity possible given the current road network options. Option 4 does not utilise any local residential streets.  The internal layout of the Freight Hub has consequently been modified to reflect the changes in the access arrangements ensuring appropriate separation of truck and light vehicle movements within the site. Staff and visitor parking have also	The Freight Hub has been redesigned to accommodate Option 4 - with light vehicle access and egress now via Lee Holm Drive and truck access and egress via Forrester Road.
		4	The proposed access via Lee Holm Drive is not acceptable because Lee Holm Road has a narrow roadway with multiple fronting driveways and land use activities. In addition, the B-double turn paths shown in Figure 7.4 of the TTA at the Lee Holm Drive access driveway use the full road width and full driveway width which is also not acceptable. Two-way truck use and car use at the Lee Holm Drive driveway is not acceptable. There was no assessment of SIDRA/swept path for the Lee Holm Drive/Christie Street which the applicant intends to use for both heavy vehicles including 26m B-double truck access and likely car access.		
		5	The B-double turn paths shown in Figure 7.3 of the TTA at the Forrester Road access driveway use the full road width and full driveway width which is also not acceptable. Two-way truck use and car use at the Forrester Road driveway is not acceptable. This is compounded by the existing traffic movements at the southern end of Forrester Road, accessing the commuter car parks, 'Kiss and Ride' area and commuter pick up and drop off area from the Bus Stop.		
		6	In considering the above, Council considers that heavy vehicle traffic generated by this development should be directly connected to the arterial road network and that the arterial road network should be upgraded to accommodate the increased heavy vehicle traffic. Any connections to Christie Street should include upgrading of Christie Street and connections to Dunheved Road, future Werrington Arterial Stage 2 (to be reconstructed by RMS), Forrester Road with additional connections to the proposed Outer Sydney Orbital. Access via local residential streets is completely unacceptable and the application should be refused on these grounds.		



				<p>been relocated to provide direct access from Lee Holm Road and suitable pedestrian access to work and visitor areas away from internal truck movements.</p> <p>It should be noted that the Freight Hub will reduce the length of many truck trips that are currently accessing customers via Port Botany (1 truck from St Marys replaces 9 to 10 trucks from Port Botany). Assuming that St Marys represents the centre of the market which receives its containers from Port Botany, approximately 55km per one-way truck trip generated will be reduced on the broader network. With 436 truck trips per day (218 IN and 218 OUT), this equates to 23,980 truck-kms per day removed off the regional road network or 8,752,700 truck-kms per annum.</p> <p>From a local road perspective Option 4 also has the added benefit of reducing truck movements on the local road network by providing the shortest route to the regional road network and its customer destinations, which translates into a savings in truck movements of up to approximately 0.5 million truck-kms per annum within the local road network when compared to the other route options under consideration.</p> <p>The traffic assessment demonstrates that Option 4 will:</p> <ul style="list-style-type: none"><li>▪ Have no impact of the Level of Service for accessed intersections and only results in an increase by a maximum of 5% on the Degree of Saturation of the intersections analysed using SIDRA method.</li><li>▪ Based on the assumed traffic volume distribution, peak traffic volumes (for Option 4), based on 2019 traffic volumes, will only increase by:<ul style="list-style-type: none"><li>- 1.6% on Forrester Road for trucks heading north after the intersection of Glossop Street and Forrester Road;</li><li>- 1.3% on Glossop Street; and</li><li>- 9% increase on Forrester Road south of Glossop Street. This portion of Forrester currently carries only 176 vehicles per hour south bound in the AM peak and 281 per hour northbound in the PM peak despite the typical capacity of a single lane urban road being 1,200 vehicles per hour. As a consequence, the low volumes of traffic make any relatively small increase in truck movements appear more significant.</li></ul></li></ul> <p>It is noted that the resultant increase in traffic is well within the predicted capacity for this road estimated at 1,200 vpd.</p> <p>This route (Option 4) and resulting traffic distribution on the surrounding road network has the least operational and safety impacts on the network, only utilises roads approved for B Double use and provides the most efficient distribution of trucks to and from the area.</p> <p>Furthermore, the intersection analysis of the 13 key intersections identified in the SEARs and in the subsequent Post Exhibited Version (Appendix 4) has revealed that the additional trucks generated by the development have a negligible incremental impact on the performance of these intersections.</p> <p>There is no reasonable basis for the claim that the assessment will place undue pressure or unacceptable burden onto the local road network.</p>	
	TRUCK DISTRIBUTION	7	<p>The TTA Figure 3.6 illustrates expected truck distribution assumption. The TTA Section 1.3 indicates that the trip generation and distribution assumptions were submitted to Roads and Maritime Services and Transport for NSW and discussed at a meeting on 11 January 2019. However, for Council, the proposed truck distribution assumption is not acceptable because Figure 3.6 demonstrates that 97% of the truck distribution is via Glossop Street and 84% is via Mamre Road. Glossop Street and Mamre Road are located within built-up residential areas. These areas are not suitable to carry the volume and types of long articulated heavy vehicle traffic generated by this development. The development's truck distribution should be directly connected to the arterial road network, not in built-up urban areas.</p>	<p>The truck distribution onto the surrounding road network was carefully considered based on a detailed customer data for existing deliveries to and from Port Botany and using existing approved B-double routes. These were also documented in the TTA Assumptions technical note and in Section 3.5 of the TTA.</p> <p>The truck routes selected ensure that heavy vehicles will only use approved B-double routes and Classified State and Regional Roads by taking the shortest and the most appropriate path to their destination in order to maintain the safety and mitigate impacts on amenity of the local road network. The use of NSW Government Classified Roads and approved B-double routes are suitable to accommodate the type and volume of traffic generated by the proposed development as they are roads designated for this type of function.</p> <p>Furthermore, intersection analysis of the thirteen key intersections identified in the SEARs and by PCC has confirmed that the additional trucks generated by the development, have a negligible incremental impact on the performance of the key intersection. As such, there is no reasonable basis for the claim that the</p>	



## LOCAL GOVERNMENT – PENRITH CITY COUNCIL

				assessment will place undue pressure or unacceptable burden onto the local road network.  Roads and Maritime and Transport for NSW (TfNSW) raised no concerns with this methodology, assumptions, path assignment and on that basis were used in the subsequent traffic assessment.	
TRAFFIC					
	TRAFFIC GENERATION	8	The TTA Section 3.1 states that the container terminal has a maximum operating capacity of 301,000TEU (20-foot containers) per annum. The TTA Section 3.4 indicates that the proposal would be around 436 trucks (218 in and 218 out) in total daily trips.	Key limiting factors that contribute and/or control traffic generation include, but not limited to, the following: <ul style="list-style-type: none"><li>Truck volumes controlled by 5 train paths with 87 TEUs per train per day, limited by a trailing weight of approx. 2,000 tonnes and train length of 600m in keeping with Sydney Trains &amp; ARTC requirements;</li><li>87 TEUs inbound by 5 train paths = 435 TEUs inbound at 100% utilisation of the asset and allocated paths (maximum capacity);</li><li>Truck trip generation is based on 2 TEUs per truck (semitrailer);</li><li>Therefore 435 TEUs inbound divided by 2 TEUs per truck = 218 semitrailer movements per day;</li><li>Trucks return with empty containers for return to Port Botany by train (218 trucks returning);</li><li>Peak hour 15 in/15 out per hour (conservatively high) incentivised to travel outside peak hours for better efficiency (i.e. reduce travel times);</li><li>Projected operations Y1 = 75k TEUs / Y2 = 100k TEUs / Y3 onwards up to 110k TEUs</li><li>Note that facility handles import containers only – no export containers will be handled;</li><li>Serviced by onsite truck fleet based at St Marys Freight Hub;</li><li>Note: 1 truck from St Marys replaces 9-10 trucks traveling from Port Botany;</li><li>Reduction of vehicle kilometres travelled (VKT) of 8.7 million per annum on the regional road network;</li><li>No unpacking of containers onsite or distribution of unpacked goods;</li><li>Quality truck equipment used for fleet (i.e. Volvo); and</li><li>The majority of customers are within 20km of the Freight Hub (Erskine Park, Eastern Creek) with a single truck completing a delivery in 1.25 hours.</li></ul> The above factors form a robust basis for calculating traffic generation for the proposed development.	
		9	The previous Environmental Impact Statement (EIS) for the Moorebank Intermodal Terminal (IMT) Project, has a capacity for 500,000 Twenty-foot Equivalent Units (TEU) per year. Please note that a TEU equates to a standard shipping container size. The Moorebank Intermodal Terminal is serviced by heavy vehicles as well as 12 interstate trains per week which load and unload at the facility. The Environmental Impact Assessment (EIS) for the Moorebank Intermodal Terminal Project has predicted that this will generate 2,174 heavy vehicle trips per day, with a trip being a journey either to or from the facility (as set out in chapter 11 on page 23 of the EIS).		
		10	The SMI has 60.2% of the maximum operating capacity that IMT proposes. Based upon IMT EIS's Chapter 11, principles, the predicated trips for SMI would be around 1309 total daily trips (based on the ratio of maximum operating capacity between IMT and SMI), which is higher than TTA.		
		11	In considering the above, Council considers the current assumptions grossly underestimate what could actually occur and recommends that traffic generation needs to be reassessed based upon the existing MTI and Chullora.		
	INTERSECTION ASSESSMENT	12	The TTA report contains extensive SIDRA output runs (173 pages) generated from the SIDRA program. However, these must be tabled in summary form and clearly articulated for Council to review. Table 4.3 to Table 4.7 need to be expanded to provide more detail in identifying the worse approach, LOS, and the approaching queue length. This needs to be done to identify mitigation measures.	The SIDRA modelling results have now been expanded in the Traffic Report provided in Appendix 4 and include additional intersection analysis of Lee Holm Road/Christie Street, Christie Street/Forrester Road, Forrester Road/Glossop Street and / Dunheved Road / Christie Street.	
		13	There was no assessment of SIDRA for the Lee Holm Drive/Christie Street, Christie Street/Forrester Road, Forrester Road/Glossop Street and / Dunheved Road / Christie Street intersections. These intersections require assessment travelling paths for intended use by both heavy vehicles including 26m B-double truck access and likely car access	Each of the 4 Options for entry / exit into the Freight Hub and distribution of trucks onto surrounding road network has also been assessed and included in the updated report. For all assessed intersections the Level of Service (LoS) and Degree of Saturation (DoS) were compared between the Base Case and the With Development cases. At all intersections there was no change in intersection LoS and DoS increased by a maximum of 5% when the site's truck traffic was added.	
	OTHER DESIGN REQUIREMENTS	14	Sealed pedestrian and cyclist access are to be provided from the southern end of Forrester Road (near St Marys Station) to the site	Noted and allowance for pedestrian and cyclist connections is made in the updated Concept Layout. The facilities will be determined as part of detailed design considerations including human safety.	
		15	The car park entry / exit should be separate from the heavy vehicle entry / exit driveways	If Option 4 as presented in our responses to Items 3-6 above is approved Heavy Vehicle access via Forrester Road with separate light vehicle access via Lee Holm Road. Car parking will be directly accessed from the internal light vehicle access road from Lee Holm Drive.	
		16	Separate accessible pedestrian access is to be provided from the footway and the car park to the building entrance in accordance with AS 2890 car park access and AS 1428 Mobility accessible paths of travel	Noted and allowance for pedestrian and cyclist connections is made in the updated Concept Layout. The facilities will be determined as part of detailed design considerations including human safety.	
		17	The access driveway widths must accommodate swept movements of the largest vehicle servicing the site and be designed to conform with AS 2890.2	As part of the <i>Post Exhibition Traffic Report</i> Swept Path assessments has been prepared for 26m long B-Double trucks for both Lee Holm Road and Forrester Road. Given the two-way movements onto Forrester Road proposed in Option 4, the crossover onto Forrester Road will need to be widened to allow entering and existing B-Doubles to pass each other. The access management strategy for the	

**LOCAL GOVERNMENT – PENRITH CITY COUNCIL**

				site will prioritise the access of an incoming truck by temporarily holding an outgoing truck within the property at the holding line in keeping with PCC suggestion.	
		18	Sight distance requirements and driveway widths are to be met in accordance with AS/NZS 2890.1: 2004 and Council requirements. This is to include the requirements set out in AS 2890.1 Figure 3.2 Sight Distance Requirements at Driveways and Figure 3.3 Minimum Sight Lines for Pedestrian Safety. Also, AS 2890.2 Figure 3.3 Sight Distance Requirements at Access Driveway Exits and Figure 3.4 Minimum Dimensions for Access Driveway Sight Splays for Pedestrians	Noted. As outlined in Section 7.1 of the <i>Post Exhibition Traffic Report</i> at both driveway locations buildings are sufficiently set back and there is sufficient safe intersection sight distances (SISD) for all approaches.	
		19	The required sight lines around the driveway entrance and exit are not to be compromised by street trees, landscaping, fencing or signposting	Noted. Will be addressed as part of the detailed design.	
		20	All car parking and manoeuvring must be in accordance with AS 2890.1, AS 2890.2, AS 2890.3, AS 2890.5, AS 2890.6 and Council requirements; and	Noted. Will be addressed as part of the detailed design.	
		21	All car spaces are to be sealed/line marked and dedicated for the parking of vehicles only and not be used for storage of materials/products/waste materials etc.	Noted. Will be addressed as part of the detailed design.	
	TRAFFIC CONCLUSION	22	The assessment heavily underestimates the truck movements	Refer Response to Items 7-9 above.	
		23	The assessment places undue pressure and an unacceptable burden onto the local road network within built-up residential areas and is completely unacceptable and should be refused	Refer Response to Items 7-9 above.	
		24	All heavy truck movements should be directly connected to the arterial road network and the arterial road network should be upgraded to accommodate the increased heavy vehicle traffic	Refer Response to Items 7-9 above.	
		25	Any connections to Christie Street should include upgrading of Christie Street and connections to Dunheved Road, the future Werrington Arterial Stage 2 (to be reconstructed by RMS), Forrester Road with additional connections to the proposed Outer Sydney Orbital	Heavy vehicle access is now from Forrester Road (Option 4) and there is minimal use of Christie Street for heavy vehicle purposes (<1%). Truck distribution onto the surrounding road network is limited to Classified State and Regional Roads and approved B-double routes with the shortest and the most appropriate path has been nominated where possible for accessing the motorway and highway network.	

ENGINEERING					
	FLOODING	26	The development site is affected by the Little Creek (a tributary of South Creek) flooding as well as by the South Creek flooding. Up to the 1 in 500 year (0.2%AEP) the Little Creek flooding is the dominant flood however for the PMF event the South Creek flooding is the dominant flood	The modelling works undertaken support this statement and the impact on adjacent properties is within allowed afflux requirements.	
		27	Little Creek runs through the site at the northern side where access to Lee Holm Road is proposed. The proposed culvert to cross the Little Creek is not modelled so the flood impacts by the changes are not known. The Flood Impact Assessment indicates that the culvert will be sized to ensure no adverse to upstream flood levels. Flood modelling is required to ensure no adverse flood impacts upstream or downstream for all flood events	The flood modelling includes the culvert under the Lee Holm access road. The size of the culvert has been set to match the existing and act as an extension. Flood modelling shows that acceptable outcomes are achieved. Further detailed assessment for the extension will be required at a future stage to provide an appropriate connection.	
		28	It is proposed to change the entire development site to hard surface, so there will be considerable increase of the site run-off. An OSD will be required to control the run-off leaving the site. Also, stormwater quality control device(s) will be required to manage the quality of stormwater leaving the development site	An assessment on the need for on site detention (OSD) has been undertaken in the BG&E report B18028_RPT_003_Rev E. This shows that no OSD is required due to the proximity of the site to Little Creek. A separate quality system is proposed along with MUSIC modelling which addresses the sites runoff quality. The required pollutant reduction targets are exceeded as part of the design. This is documented within BG&E report B18028_RPT_003_Rev E.	
		29	More than a half of the development site will be inundated by the South Creek PMF flooding and by the little Creek flooding. Therefore, there should be some barriers installed to prevent any floating containers leaving the site during floods. This is to prevent any blockages of culverts or bridges located downstream by the floating containers	An assessment into the hazard and likelihood of container impact during the South Creek PMF event has been undertaken and is documented in BG&E report B18028_RPT_002_FIA_RevE. The assessment shows that the PMF flooding within the site due to rising waters from the backing up of South Creek. The likelihood of containers floating and causing blockage is negligible given a significant proportion of the pavement area will be free of inundation.	
		30	It is also proposed to have “shelter-in-place” to manage flood evacuation. This is not supported. In any case a flood evacuation management plan will be required to address the flood evacuation	A shelter in place is proposed for the site due to the short duration of flooding for Little Creek. Flood inundation occurs for surround roads during low frequency events which limits egress. During these events the site has ample flood free areas which can be used as shelters in place. The South Creek peak flooding occurs after 36 hours which provides ample time for egress from the site. Flooding for surround roads during the PMF event cuts off numerous access roads, leaving the site as the best location for shelter during this event.	
		31	The proposed development is simply meeting the 100mm adverse flood impacts as stated in our DCP. This is not acceptable. There shouldn't be any increase in flood levels upstream or downstream	Noted, however due to the nature of the development, afflux cannot be eliminated. Numerous controls have been put in place to mitigate the impact of	





LOCAL GOVERNMENT – PENRITH CITY COUNCIL

				the development. The development complies with the afflux requirements and retains the existing flow regime and is outlined in the flood report.	
		32	The development must demonstrate that the proposal is compatible with the State Government Floodplain Development Manual and Council's Local Environmental Plan and Development Control Plan for Flood Liable Lands	Refer to the updated Flood Impact Assessment for responses to the plan and Development Control Plan (DCP). The response show that the proposed development is compliant with the plan and DCP desired outcomes.	
	STORMWATER DRAINAGE	33	Stormwater drainage for the site is to be undertaken in accordance with the Penrith DCP 2014 Part C3 Water Management	Noted. A suitable stormwater management scheme is proposed that is in accordance with the Penrith DCP.	
		34	All stormwater drainage is to be designed and constructed in accordance with the following Council adopted policies and standards <ul style="list-style-type: none"><li>Stormwater Drainage Specification for Building Developments</li><li>Design Guidelines for Engineering Works for Subdivisions and Developments</li><li>Engineering Construction Specification for Civil Works</li></ul>	Noted. The BG&E Stormwater Management Report has been updated to include further reference to the Councils adopted Policies and Standards.	
		35	The development shall not have any adverse impact upon adjoining properties by the damming, concentration or diversion of existing stormwater flows	The development does not have any adverse impact on adjoining properties and meets the DCP afflux requirements.	
		36	As the development is predominately hard stand, post developed stormwater discharge flows are to match pre-developed flows		

BIODIVERSITY

	BDAR	37	The BDAR identifies biodiversity values on the subject site. Three Plant Community Types (PCTs) occurring in various conditions are present in the development site. The PCTs have been mapped as; PCT 835 – Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion; PCT 1800 – Swamp Oak open forest on riverflats of the Cumberland Plain and Hunter Valley; and PCT 1071 – Phragmites australis and Typha orientalis coastal freshwater wetlands of the Sydney Basin Bioregion. PCT 835 and 1800 conform to the endangered ecological community (EEC) 'River-flat eucalypt forest on coastal floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions' listed under the BC Act. One threatened flora species, Grevillea juniperina subsp. juniperina (Juniper-leaved Grevillea), was recorded within the development site. Three threatened microchiropteran bats (microbats) were recorded during the Anabat survey within the development site including Myotis macropus (Southern Myotis), Falsistrellus tasmaniensis (Eastern False Pipistrelle) and Mormopterus norfolkensis (Eastern Freetail-bat). Possible calls of the threatened microbat Miniopterus schreibersii oceanensis (Eastern Bentwing-bat) were also recorded, however, the calls cannot be confidently attributed to this species due to overlapping calls with other species.			Noted.		
		38	Impacts on Grevillea juniperina subsp. juniperina and Southern Myotis habitat require species credit offsets. Impacts to Eastern False Pipistrelle, Eastern Freetail-bat and Eastern Bentwing-bat will be offset as ecosystem credits. The BDAR describes avoiding and minimising the impacts through the positioning of most of the development in the areas of the subject site degraded and with no biodiversity values. I agree with this finding. Where impacts on Biodiversity values has been unavoidable the works have been restricted to the most degraded vegetation and the connectivity between ecosystems is still maintained.			Noted.		
	CREDITS	39	Ecosystem credits required			Noted.		
			Plant Community Type		ID #		Credits	
			Forest Red Gum – Rough barked Apple grassy woodland on alluvial flats of the Cumerbland		835		13	
			Swamp Oak open forest on riverflats of the Cumberland Plain and Hunter Valley		1800		1	
			Phragmites australis and Typha orientalis coastal freshwater westlands of the Sydney Basin Bioregion		1071		2	
			Species Credits Required					
			Species		Common Name		Credits	
			Grevillea juniperina subsp. Juniperina		Juniperina Juniper-leaved		11	
			Myotis macropus		Grevillea	7		
					Southern Myotis			
	SUMMARY	40	In summary I am satisfied with the BDAR and the required credits to offset the impact. Prior to the issue of any Construction Certificate, the consent authority should be satisfied that the ecosystem and species credits have been retired.			Noted. Ecosystem and Species Credits will be retired prior to the issue of any Construction Certificate.		

ENVIRONMENTAL MATTERS



## LOCAL GOVERNMENT – PENRITH CITY COUNCIL

	INTRODUCTION	41	Recommended conditions are not provided as the level of detail in the EIS, including technical documents, is not considered satisfactory and significant issues have been identified that require further consideration and assessment.	Noted.	
	LAND CONTAMINATION	42	A small area (a former stockpile footprint in the northern portion of the site) has been identified to be impacted by surficial asbestos. The Contamination Assessment undertaken concludes that 'the site can be made suitable for the proposed development subject to the successful remediation and validation of asbestos impacted soil'. A remediation action plan has been prepared for the site and is included in the EIS.	Noted.	
		43	It is understood that the SSD Application seeks to develop approximately 9.6 hectares of the overall 43-hectare site. Accordingly, the site investigations (Preliminary Site Investigation and Supplementary Contamination Assessment) and remediation action plan (RAP) all focus on this part of the site only. It is acknowledged that the overall site comprises several separate lots, some of which are entirely outside the proposed developable area. However, the application does not discuss site management in terms of ensuring that no site activities extend beyond the developed area.	Operations of the Freight Hub will be confined to the development area as there is no reason or purpose to extend beyond the constructed facility. Further, use of land outside the constructed facility will be a contravention of the lease arrangements by the operator of the Freight Hub. Access and limitations are to be included in the Operational Environmental Management Plan (EMP) to prevent access and use of land outside of the lease area.	
		44	<p>The application refers to activities including long-term stockpile storage and the potential containment of contaminated material on site. However, the proposed location for these is not detailed.</p> <p>The application does not discuss how the site will be managed in the long-term to ensure that all activities are kept wholly within the developed area to prevent future encroachment into the adjoining area of land.</p> <p>It is considered appropriate that this aspect of long-term site management be addressed, with consideration given to determining whether the remainder of the site is also potentially impacted by surficial asbestos or other contamination, and whether physical demarcation of the developed area is required to prevent the future overflow of activities to the larger portion of the site. The provision of long-term site management controls to ensure that activities will not overflow to other areas of the overall site will have implications for other environmental aspects of the development as well as land contamination.</p>	<p>Stockpiles within the development site were illustrated in the Preliminary Site Contamination Assessments submitted with the EIS and additional testing of Stockpile 3 has been undertaken in accordance with EPA requirements (see Appendix 9). Full consideration of contamination and remediation has been given to the development site which has included Preliminary Site Assessment, supplementary site assessments, high density assessment and testing of Stockpile 3, an asbestos delineation assessment, preparation and updated Remediation Action Plan (RAPs), and preparation of a draft Interim Environmental Management Plan (IEMP).</p> <p>Management of the areas outside of the land subject to this proposal is not a consideration for this proposal.</p>	
		45	The application does not recognise that Council consent is required for the remediation of all land within the Penrith Local Government Area (LGA) with the RAP stating that remediation and validation works will be carried out and 'endorsed' by NSW Department of Planning. Page 17 of the RAP states that development works will only progress following written confirmation by the environmental consultant. The planning process that applies to the remediation of land within the Penrith LGA will need to be addressed.	Consent for all required remediation works is being sought as part of this proposal.	
		46	The RAP discusses remediation by either off-site disposal or on-site burial of contaminated material. The RAP states that 'the appropriate course of action and ongoing environmental management requirements for the contaminated excavated material will be determined by the Environmental Consultant with Pacific National at the time of remediation'. The Development Application required to be submitted for remediation of the site will need to clearly detail the proposed method of remediation. Should on-site burial be proposed, the RAP will need to include details of the location, size and construction specifications for the containment, along with long term management plan details. The RAP raises the potential need to raise the level of the site in the event that onsite burial of material occurs. The impact of this will need to be considered in relation to overall site levelling works with the impact, if any, on fill importation requirements ascertained.	<p>The RAP has been updated to further address the remediation options for the identified areas of contaminated material on site, evaluation of these options and the identification of the preferred strategy for onsite containment of the contaminated materials.</p> <p>Consent for all required remediation works is being sought as part of this proposal.</p> <p>A preliminary site design and containment cell has been identified that will be incorporated into the construction phase of the site's development and the final design. This includes details regarding how the cell will be designed, minimisation of cross contamination and waste disposal of materials.</p>	
		47	The EIS states that no material will be exported off site. Managing the movement of contaminated material on site ensuring separation of contaminated from uncontaminated material needs to be clearly detailed, including short term storage and long-term placement. It is noted that the Supplementary Contamination Assessment identified soil impacted by contaminants that are present at levels suitable for industrial/commercial land use, but which exceed ecological investigation levels (EILs). The application does not detail how material that is above EILs will be managed to ensure that it does not potentially impact ecologically sensitive areas of the site. Further consideration needs to be given to the onsite management of material that exceeds EIL's to ensure that if it is used on site it is utilised under hardstand areas and not stockpiled or placed elsewhere where it could impact vegetation and/or water quality.	<p>An Interim Environmental Management Plan (IEMP) for the management of the proposed containment cell has also been prepared by Douglas Partners and is provided in Appendix 12</p> <p>It should be noted that the proposed treatment options are all in accordance with the EPA recommended treatments.</p>	
		48	The site has two existing sediment ponds, one of which is proposed to be dewatered then filled. The EIS does not include details of the proposed dewatering process and the land contamination investigations undertaken do not include an assessment of either of the sediment ponds. Therefore, the suitability of the land resulting from the sediment pond dewatering is unknown.	A Dam Dewatering Plan has been prepared and is included in Appendix 7	
		49	The PSI identified that further investigation of the railway corridor on site was required to determine whether surficial asbestos (asbestos brake pads) are present. The Supplementary Contamination Assessment included 3 sampling points within the rail corridor, however, the assessment does not state whether a thorough walkover investigation of the railway corridor was undertaken in addition to the sampling conducted.	Additional investigation of the rail corridor has been completed by Douglas Partners and is documented in their report 'Stockpile SP3 and Railway Corridor Investigation Proposed St Marys Intermodal Freight Terminal' in Appendix 9. The assessment confirms there is no contamination issue with the rail corridor.	
		50	It is noted that remediation works are not included in the tabulated Construction Programme in Appendix 7.	The required remediation works has now been confirmed through the additional contamination investigations and remediation plans. These works are intrinsic to the construction works and will be included as part of the early works package.	



# LOCAL GOVERNMENT – PENRITH CITY COUNCIL

	AIR QUALITY IMPACT ASSESSMENT (AQIA)	51	Air dispersion modelling has been used to assess the operational impact of the development and it is understood that NSW EPA will rigorously review the modelling to ensure that input data used, and subsequent assessment conclusions, are representative and appropriate. Consequently, it is anticipated that NSW EPA will identify any omissions and/or discrepancies in the assessment. However, the following comments in relation to some issues of concern are provided.	Noted	
		52	The operational modelling scenario was undertaken 'based on expected normal locomotive and truck movements during operation'. It is considered appropriate that modelling be undertaken to assess the worst-case scenario.	<p>The facility has been assessed assuming the following throughput:</p> <ul style="list-style-type: none"> <li>Trains present at assumed worst case emissions (either idling or Notch 2) for 24 hours per day, 7 days per week for a full year. This is considered to be an over-estimate as there will be times when trains will not be present at the site. It was considered prudent however, to assume 24/7 emissions to ensure all meteorological conditions have been considered for the site; and</li> <li>Trucks were assumed based on the numbers provided in the Traffic Assessment, which states the upper limit of capacity is up to "218 trucks IN and 218 trucks OUT of the site per day". The truck numbers therefore are based on maximum throughput and is hence worst case.</li> </ul> <p>Given the assumptions above, the modelling can be considered as worst case.</p>	
		53	The construction air quality assessment adopts the UK Institute of Air Quality Management (IAQM) level of 'low' for surrounding receivers during the construction stage. Part of the justification for this is based on no residential properties being within 20m of the site. Given that the site is surrounded by residential properties; and is close to St Marys High School and adjoining industrial/commercial work places, concern is raised at the application of this sensitivity level, particularly as the area of earthworks will be 6-7 hectares. Also, the AQIA does not provide a time schedule for the works.	The closest residential property distance ranges from 150 meters from the southern end of development to 700 meters to the northern point of the development. The distance to the majority of residential properties is well in excess of the 150m to 700m to the closest dwellings and all activities are considered very low risk in terms of impacting this class of property, particularly given the obligation rests with the proponent to develop the site within the statutory requirements.	
		54	The AQIA concludes that the 'unmitigated risk of air quality impacts during earthworks and construction have been predicted to be low' and recommends broad mitigation measures as precautionary management. However, the AQIA does not provide an assessment of what actual air quality impact the construction works will have on surrounding receivers and for what period of time. Therefore, it is unknown what the actual air quality impact will be during the construction phase at St Marys High School and nearby residential, commercial/industrial properties.	Air quality will be maintained in accordance with the statutory requirements for dust control, which is underpinned by contractual obligations between the proponent and the contractor to ensure suitable dust suppression activities are put in place to prevent any impact on adjacent land uses. This will be underpinned by a community engagement program that provides direct contact with the Project Director for local community to contact in relation to any grievances that may arise in order that remediation actions can be put in place immediately to address these concerns as they arise.	
		55	The proposed mitigation strategy for managing stockpiles during construction includes 'orientating them in a direction that reduces exposed surfaces to prevailing winds' and watering when required. Details of the maximum height of stockpiles and storage location are not provided in the AQIA (although the EIS states on page 53 that stockpiles will be a maximum height of 1.5m).	A stockpile management plan will be included in the Construction Environmental Management Plan (EMP) prior to early works commencing.	
		56	Furthermore, the AQIA does not discuss the long-term storage of stockpiles as proposed in the EIS. The management strategy proposed for construction stockpiles is not appropriate for the management of the long-term stockpiles and further consideration is required about the management and incorporation of permanently stored material on site.	A stockpile management plan will be included in the Construction Environmental Management Plan (EMP) prior to early works commencing. Long term storage of material is not proposed.	
		57	Whilst the AQIA identifies operational exceedances of PM2.5 at the residential area to the southwest of the site (Kalang Avenue area), the report does not include a contour site plan that clearly identifies all surrounding receivers in relation to the site, including predicted concentrations of pollutants at the receivers. Also, whilst it is recognised that the AQIA attributes the PM2.5 exceedance to existing elevated background concentrations, it does not discuss whether there are potential options to mitigate the additional contribution.	A contour plan has been included in the post exhibition AQIA.	
		58	It is noted that the AQIA does not discuss complaint management and this will need to be addressed in the CEMP for the development.	Compliant management will be documented in the Construction Management Plan.	
		59	Finally, given the extent of earthworks (6-7 hectares) it is considered appropriate that monitoring be undertaken during the construction stage to ensure mitigation measures are effective. Importantly, monitoring will provide a mechanism for detecting and responding to any exceedances should they occur.	Noted.	
	STATE ENVIRONMENTAL PLANNING POLICY (SEPP) 33 – HAZARDOUS AND OFFENSIVE DEVELOPMENT	60	The EIS includes a risk screening assessment which concludes that the proposal is not potentially hazardous. The assessment identifies that materials entering the Freight Hub will need to comply with the Australian Dangerous Goods (ADG) Code ensuring correct segregation, packaging, labelling and storage.	Noted.	



**LOCAL GOVERNMENT – PENRITH CITY COUNCIL**

		61	Furthermore, hazardous materials within containers will not be accessible by site activities as containers are not opened. It is noted that only approximately 1% of the containers moving through the Freight Hub will likely be transporting a classified substance under the ADG Code.	Noted.	
	WASTE MANAGEMENT PLANS	62	The Construction WMP is presented as a dynamic working document to be reviewed and amended as circumstances require and this fluid style of plan is supported.	Noted.	
		63	It is noted that the Construction WMP does not anticipate asbestos waste during construction works. An Unexpected Finds Protocol (UFP) will be developed for the site to address any unexpected material, including asbestos. Given that the construction WMP is a working reference document for site personnel, ideally it should reference the UFP to ensure the provision of information relating to unexpected waste management.	The asbestos delineation assessment, revised RAP and Interim EMP, including an Unexpected Finds Protocol (UFP), has been prepared (refer to Appendix 11). The Construction EMP will also capture this requirement in accordance with the statutory requirements as it relates to contaminated materials.	
		64	The Construction WMP identifies a stockpile location, however, this is not referenced or discussed elsewhere in the EIS reports.	The stockpile location forms part of the procedural coordination of construction for the facility. Material handling will be managed to appropriate environmental management standards.	
		65	The Construction WMP discusses liquid waste management and disposal, referring to sandbags, geofabric and the staging of works. It also refers to the onsite recycling of wastewater from the wash bay if possible. The Construction Environmental Management Plan (CEMP) including Construction WMP will need to clearly detail the provision of bunding and other pollution controls to demonstrate and ensure that all liquid waste generated during construction is diverted to sewer (subject to Sydney Water approval), or lawfully disposed of off- site.	Noted.	
		66	The Operational WMP predicts 600 waste tyres will be produced annually with storage in 'stockpile areas' on site. The WMP does not detail the maximum number of tyres to be stored at any one time, nor does it detail the location and design of the proposed storage area. The SEPP 33 assessment does not include an assessment of tyres stored on site. Furthermore, the storage of more than 500 waste tyres will require an Environment Protection Licence (EPL) issued by NSW EPA. The storage and disposal of waste tyres requires further consideration, clarification and assessment.	Consultation with the Freight Hub operator confirms there will be no mass storage of tyres on site and the Operation Waste Management Plan, prepared prior to occupation, will be updated accordingly.	
	NOISE AND VIBRATION ASSESSMENT (NVA)	67	The NVA uses modelling to predict the noise and vibration impacts that will occur during the construction and ongoing operation of the development, based upon the 'worst case scenario'. It is understood that NSW EPA will review the NVA, including conducting independent modelling, to ensure that the NVA is representative and accurate. Given the nature of the proposal and the noise exceedances predicted, this independent technical review is critical to confirming noise impacts upon surrounding receivers and to informing the assessment process.	Noted.	
		68	From the information provided in the NVA, several significant issues have been identified, including:  The NVA is based upon construction work occurring during 'standard construction hours'. These hours are not detailed; however, it is assumed that standard hours refers to those recommended in the Interim Construction Noise Guideline (the EIS also refers to 'standard hours' that are outside those recommended in the Guideline). However, page 51 of the EIS states that work outside of standard hours is proposed for a period of up to 4 months, including work between 6pm and 6am Mondays to Fridays, of a 10-hour duration. The NVA does not assess construction noise during these hours;	Standard hours are as defined in the EPA Interim Construction Noise Guideline. The NVA has been updated to include assessment of noise levels for works outside standards hours. Noise modelling has defined an extended work hours activity area within the development site where there is no noise affected (RBL + 5 dB) residential receivers during evening and night time hours.	
		69	The EIS states that it takes 4 hours to unload a train using 3 reach stackers. The number of reach stackers used in the noise modelling is not clearly stated. Again, independent modelling by NSW EPA will ascertain whether the NVA predictions are representative of the proposed operations, including equipment used;	The NVA has been updated to state that three (3) reach stackers have been assumed to be operating.	
		70	Whilst the NVA recommends mitigation measures that 'may' reduce the impact of construction noise on receivers, it does not predict what the actual reduction is likely to be with those mitigation measures implemented. Similarly, the NVA recommends the use of 'soft landing technology' to minimise container handling noise, however, it is not clear whether the noise level predictions account for the implementation of that technology.	The performance of reach stacker soft landing technology has been tested and is detailed in the post exhibition NVA. A note has been included in regard to construction noise results to clarify that the levels do not include the additionally recommended noise mitigation measures.	Soft landing technology will be installed on Reach Stackers utilised as part of the proposal.
		71	The NVA does not provide a schedule of works that indicates the proposed timing and duration of works and as it currently presents, the NVA is inconsistent with the EIS with regard to work hours and scheduling;	The NVA has been updated to include the staging and duration of construction works.	
		72	Regarding rail generated noise, the NVA assesses rail noise generated from within the site only. The NVA does not discuss the process involved in trains entering the site from the main line. Therefore, it is unknown whether the movement of trains from the main line to inside the property will have any noise impact on nearby receivers;	Additional operational rail noise monitoring has been undertaken as part of the revised NVA report. The results of these findings are addressed in detail in Section 6.5 of the NVA Report.  The train movements in and out of the site are expected to comply with the EPA Rail Infrastructure Noise Guidelines (RING) criteria with sleep disturbances due to rail movements predicted at NCA 2.	



LOCAL GOVERNMENT - PENRITH CITY COUNCIL

				<p>Wheel squeal is predicted to cause exceedances of up to 8 dB(A) and bunching is expected to cause marginal exceedances of up to 4 dB(A). It is noted that this type of noise is already a feature of this areas due to rail movements on the T1 main western railway line.</p> <p>To mitigate the maximum noise levels generated by the rail movements a number of measures are recommended including lubricating the track, electronic pneumatic braking system and noise monitoring systems.</p> <p>It is also be noted that NCA 2 already experiences LAm<sub>ax</sub> noise levels in excess of 70 dB(A) during the night due to existing industrial noise and train pass-bys. The type of noise likely to be generated by operation of the Proposal will be of the same nature and generally a lower level. The predicted exceedances due to the Proposal are worst case, noise levels would generally be lower for most of the night.</p>	
		73	<p>Concern is raised about the noise exceedances, particularly exceedances in sleep disturbance criteria, that will result from operation of the Freight Hub, particularly from the 'clangs' (10-20 per hour) as containers are stacked. The NVA predicts significant noise exceedances in Kalang Avenue with the worst affected properties experiencing noise levels up to 13dB(A) above sleep disturbance criteria. The NVA identifies 6 properties (37,39,41,43,45 and 47 Kalang Avenue) as requiring house treatment works (air conditioning and treatment to windows and doors to bedroom areas). Whilst page 93 of the EIS states that measures will be taken to meet with those residences affected by operational noise and requiring house treatment, neither the EIS nor the Consultation Strategy discusses this aspect of noise management in detail. Further, the existing construction of affected homes has not been discussed or considered. It has not been demonstrated that treatments to windows and doors alone will achieve required noise reduction. Construction issues that may affect the internal noise levels experienced by affected receivers such as subfloor areas, roofing materials and cladding, are not discussed. Again, review and modelling by NSW EPA will be crucial in confirming and further informing the noise impact to the residences and the suitability of the proposed house treatment measures. Targeted consultation and engagement with all affected residences should be given high priority at the earliest stage possible and all possible on-site operational mitigation measures investigated to reduce off site impacts;</p>	<p>The performance of soft land technology has been tested and considered in the updated noise modelling in post exhibition NVA.</p> <p>Soft landing technology will reduce the exceedances in sleep disturbance criteria to acceptable levels.</p> <p>In addition, the use of rubber dampeners on containers will further mitigate noise levels for night time sleep disturbance.</p> <p>Once noise testing and monitoring has been undertaken during the first 12 months of operation, a comprehensive assessment of the residential buildings and noise attenuation requirements can be properly assessed.</p>	
		74	<p>In providing air conditioning as a treatment measure to affected properties, consideration will need to be given to noise impacts associated with those air conditioning units, ensuring compliance with applicable noise criteria and the provisions of the Protection of the Environment Operations Act 1997; and</p>	<p>Noted</p>	
		75	<p>The NVA proposes noise monitoring during construction of the development, however, operational monitoring is not discussed. An approval issued for the development should include conditions that reference noise criteria and require monitoring to ensure the applicable criteria is achieved.</p>	<p>The NVA states that operational noise monitoring should be completed within 12 months of opening to verify the noise impacts at nearby sensitive receivers.</p>	<p>Additional Operational Noise Monitoring will be completed within 12 months of opening</p>
	SEDIMENT BASINS	76	<p>The EIS and technical documents do not adequately address the sediment ponds that exist on the site. The proposed dewatering and filling of the small pond is not discussed, and further consideration needs to be given to this aspect of the development having regard to soil and water quality and land contamination considerations. In regard to the large sediment basin, it is unclear as to how the development shall consider, protect and manage it in terms of short and long-term land and water quality impact management. The application also does not detail whether water from either of the ponds is proposed to be used on site at any time during construction or ongoing operational activities. The presence, removal and management of the sediment basins needs to be addressed.</p>	<p>No filling of the dams is proposed. Under the post exhibition design, an existing former sediment basin is to be utilised for a water quality facility to meet Council's water quality standards. In addition, a Dam Dewatering Plan has been prepared and is included in Appendix 7.</p>	
WATERWAY (WSUD) MATTERS					
	GENERAL	77	<p>A review of the information provided with the application indicates a commitment to install 2 x Vortechs VX16K GPTs, 4 x enviropod pit inserts, a vegetated swale (length unspecified), and 1 x 25KL and 1x 100KL rainwater tanks with associated reuse.</p>	<p>The water quality treatment design has been updated to accommodate the provision of an aerobic detention basin that satisfies Council's water quality requirements. The infrastructure requirements are outlined in the post exhibition Stormwater Management Report in Appendix 6 and engineering design drawings in Appendix E of the Stormwater Management Report.</p>	
		78	<p>The proposed stormwater treatment does not meet Council's Water Sensitive Urban Design (WSUD) Policy requirements for pollutant removal. The applicant is seeking a merit-based assessment for the site. This is not supported given that the site discharges to Little Creek and ultimately to South Creek, which is highlighted as a significant waterway in the Western City District Plan. In addition, the site will be largely impervious with significant new areas of hardstand being proposed. Removal of Total Suspended Solids, Total Nitrogen and Total Phosphorous must be adequately addressed as nutrients have a detrimental effect on receiving waterways, not just gross pollutants, sediment and hydrocarbons (as attested by the applicant)</p>	<p>The water quality treatment design has been updated to satisfy Council's water quality standards and requirements. The revised water quality treatment design now exceeds all minimum standards.</p>	



LOCAL GOVERNMENT – PENRITH CITY COUNCIL

		79	<p>The following concerns are also raised for your consideration:</p> <p>No electronic MUSIC modelling file was available for review. As such the proposed treatment could not be fully assessed including what level of pollutant removal is achieved by the proposed devices. The MUSIC model (i.e. *.sqz file) must be provided to Council for assessment. The treatment train must meet the following pollution retention criteria:</p> <ul style="list-style-type: none"><li>▪ 90% Gross Pollutants;</li><li>▪ 85% Total Suspended Solids (TSS);</li><li>▪ 60% Phosphorous (TP); and</li><li>▪ 45% Nitrogen (TN).</li></ul>	<p>The MUSIC Model is provided and demonstrates that the pollution retention requirement has been exceeded for this development. The revised water quality treatment design now exceeds all minimum standards.</p>	
		80	<p>Modelling parameters for the determination of size and configuration of WSUD elements must be in accordance with the MUSIC Modelling Guidelines for NSW (eWater User Guide) and with the parameters developed for use in Penrith. Council has developed a range of parameters to be used in the Stormwater modelling, which is available in Council's WSUD Technical Guidelines (available at <a href="http://www.penrithcity.nsw.gov.au">www.penrithcity.nsw.gov.au</a>).</p>	<p>Note.</p>	
		81	<p>There are no details (i.e. dimensions, length, cross-sections etc) provided on the Civil plans for the proposed vegetated swales. The applicant should amend the plans and details must correspond to the MUSIC model node parameters.</p>	<p>Refer to engineering design drawings in Appendix 6 (refer Appendix E of the report).</p>	
		82	<p>The location and size of the rainwater tanks is not shown on the Civil Works (i.e. Stormwater Layout) Plans.</p>	<p>To be determined at detailed design stage.</p>	
		83	<p>The location and number of Enviropod pit inserts is not specified on the Civil Works Plans. The applicant should amend and provide details to correspond to the MUSIC modelling.</p>	<p>To be determined at detailed design stage.</p>	
		84	<p>Cross section details (including site specific levels) for the proposed Vortechs GPTs must be provided on the Civil Works Plans.</p>	<p>To be determined at detailed design stage.</p>	



3. GOVERNMENT AGENCY SUBMISSIONS

3.1 NSW EPA

GOVERNMENT AGENCY – NSW EPA					
KEY ISSUE	DETAILED ISSUE	ITEM NUMBER	SUBMISSION COMMENT	PROPONENT RESPONSE	CHANGE
WATER					
	CONSTRUCTION PHASE EROSION AND SEDIMENT CONTROL	85	It is unclear whether the proposed construction phase stormwater management will be consistent with industry guidelines as limited detail is provided.	The post exhibition Stormwater Management Plan has been updated to address sediment and erosion control during the construction phase.	
	OPERATIONAL STAGE STORMWATER MANAGEMENT	86	The proposed operation phase stormwater management measures appear broadly appropriate to manage potential water pollution risks. The stormwater treatment train would include a sediment retention basin, gross pollutant traps and gully pit inserts to intercept and treat stormwater runoff from the hardstand area and access roads. Runoff from roofed areas will be captured in rainwater tanks for reuse in toilet flushing and in the wash bay. Wastewater from the wash bay will be discharged to sewer under a trade waste agreement.	Noted. Necessary trade waste agreements will be obtained prior to operation of the wash bay.	
		87	To ensure the water management system is appropriately designed to contribute to waterway outcomes, ambient water quality targets for the receiving waters should be developed with reference to the NSW Water Quality Objectives and national water quality guidelines instead of adopting generic per cent load reductions. The EIS does not provide details of expected water quality outcomes but indicates that stormwater management measures would achieve generic per cent load reductions based on Penrith City Council's requirements (gross pollutants 90%, TSS 85%, TP 60%, TN 45%, 90% oil and grease). These generic targets do not relate to waterway outcomes and may not contribute to maintaining or restoring the environmental values of the receiving waterways.	The NSW Water Quality Objectives has now been addressed in the Stormwater Management Plan.	
		88	The NSW Water Quality Objectives (WQOs) are the NSW Government endorsed environmental values and long-term goals for NSW's surface waters. Consistent with the guiding principles of the NSW WQOs, it is recommended that the stormwater management system is designed to:  protect the environmental values of the receiving waterway where they are currently being achieved; and  work towards achieving the environmental values of the receiving waterway where they are not currently being achieved.	SWMP has been updated to include a bio-retention basin to PCC standards to meet water quality targets and objectives.	
	RECOMMENDATION	89	It is recommended that the proponent ensures that construction stage erosion and sediment controls are designed and operated consistent with the practices and principles in Managing Urban Stormwater, Soils and Construction Volumes 1 and 2.	This will be included in the D&C Contractors specifications to meet these requirements.	
NOISE					
	NOISE MONITORING		The following items require clarification regarding the unattended noise monitoring:		
		90	1. Fact Sheets A and B of the Noise Policy for Industry (NPfI) require at least one week of valid data to calculate rating background levels (RBL). All monitoring locations have either 3 or 4 days of valid daytime noise monitoring. The proponent should either justify that the data presented in the report is representative of the long-term background noise levels in each Noise Catchment Area (NCA) or provide at least one week's worth of valid data.	Noted. As highlighted in Section 2.3.1 of the Noise and Vibration Assessment (NVA), the report has been updated to confirm that in total 13 days of logging were completed, however some periods were excluded due to adverse weather (mostly during the day-time). For the most critical night-time period each location of logging has around 11 days of data for this period.	
		91	2. Photos of the monitoring equipment at Lockyer Avenue and Albert Street appear to show the microphones close to reflective surfaces. The proponent should provide more information and justification for the choice of monitoring locations adjacent to walls and if any adjustments have been made for the presence of the reflecting surfaces (other than the ground).	The logger at Lockyer Avenue was around 1.5m from the facade, and the logger at Albert Street was <1m from the facade. The background noise levels (i.e. LA90) have not been corrected to account for facade reflections as the background noise levels in this location is not entirely attributed to road traffic noise. The background noise includes many noise sources both distant and in close proximity to the measurement location and arriving at the microphone location from different directions.	
		92	3. The noise logger graphs in Appendix B show a number of periods where the wind speed is greater than 5 m/s. The proponent should provide commentary in the report on how these periods have been considered in the calculation of RBLs.	Any data where the wind speed was greater than 5mm./s have been excluded and the post exhibition NVA has been updated to include this note.	
		93	4. The proponent should provide a justification for carrying out attended monitoring at NCA 1 and 2 and not at NCA 3 and 4 during the night period.	NCA1 and NCA2 are the controlling NCAs and daytime measurements indicated that the most significant source of noise within NCA 3 and NCA4 was traffic noise, rather than industrial noise. The night-time measurements at NCA1 and NCA2 were completed to assist in determining the level of industrial noise at the catchment areas during the night-time.	



GOVERNMENT AGENCY – NSW EPA					
		94	5. Noise report Figure 1 appears to show NCA 3 and NCA 4 in different locations to how they are described in the rest of the report.	Figure 1 incorrectly identified the location of NCA 3 and NCA 4, and has been updated accordingly.	
	PROJECTED NOISE TRIGGER LEVELS	95	The EPA does not consider the use of the industrial interface to be appropriate for NCA 2. The proponent should review the amenity noise level applied to NCA 2 and use an appropriate amenity noise level to derive the project noise trigger levels.	<p>The Indicative Noise Amenity Area for NCA 2 has been revised to only refer to Suburban, and not the Industrial, Interface in Table 14 of the updated Noise and Vibration Assessment.</p> <p>However, from the attended and unattended measurements at these locations it is clear that the area is currently affected by rail movements and is subject to high LAeq levels throughout the night-time period.</p> <p>As NCA 2 is subject to these high traffic levels during the evening and night-time periods it has been adjusted in accordance with the Noise Policy for Industry.</p>	
			The reasons that the EPA does not consider NCA2 to be an industrial interface are as follows:		
		96	1. Section 2.7 of the NPfI notes that the industrial interface is generally only applicable to existing residences affected by existing industries that are being modified or expanded. The proposed intermodal facility is considered a new development. Since more mitigation options are generally available for new developments, the industrial interface provisions are not appropriate in this instance.		
		97	2. The report states that NCA 2 is adjacent to the existing industrial area and the existing noise environment is significantly influenced by industrial noise. However, the report does not provide sufficient evidence that there is significant industrial noise above, or close to, the amenity levels at the receivers. An industrial interface generally only applies when existing industrial noise levels are at or above the amenity levels.		
		98	3. Noise monitoring results for NCA 2 in Appendix B of the noise report show that the Leq is consistently higher than the L10. This is indicative of the ambient noise environment being controlled by short noise events, such as train passbys as noted in the attended measurements. The large difference in measured Leq and L90s indicates that the constant noise sources such as road traffic noise are generally of a much lower level (low 40s and high 30s) than the transient ones, like train passbys. Table 4 notes during the night period a hydraulic whine and industrial hum, however during the day road traffic noise is the dominant constant source. Therefore, it does not appear that the noise environment is dominated by industrial noise at a noise level above the amenity levels and so the industrial interface provisions would not apply.		
		99	The container freight flow chart in Figure 9 of the EIS report shows that there will be multiple operating scenarios and activities to take place across the site. The EPA is concerned that using only one scenario to assess all of these activities is not sufficient to identify and quantify potential noise impacts from all activities and operations occurring across the site. This also has limited the ability to evaluate all potential mitigation measures. The proponent should provide justification that the various activities that will take place on the site are sufficiently captured by the single assessed scenario and how mitigation has been assessed and designed using a single scenario. Alternatively, the proponent must assess all relevant scenarios and update their assessment	Noise modelling was based on the typical worst-case conditions.	
		100	There were a number of potential issues identified in the assumptions used for the noise modelling. In order for the EPA to assess the appropriateness of the noise modelling, the proponent should clarify the following assumptions:		
		101	1. Chapter 6.2.4 of the noise report states truck movement volumes were taken from the traffic report but does not outline the underlying assumptions. The report should state how many truck movements are considered.	Section 6.2.1 has been updated to include the following: <ul style="list-style-type: none"> <li>15 truck trips per hour during the daytime, seven truck trips per hour during the evening and eight truck trips per hour during the night-time</li> <li>Four light vehicle trips per hour during the daytime, evening and night-time</li> </ul>	
		102	2. Chapter 6.3.5 of the noise report states, “most other industrial noise sources modelled on site are proportional in quantity to the number of truck movements.” The proponent should clarify what these assumptions are.	Section 6.2.1 has been updated to include additional information regarding sources and numbers.	
		103	3. The report should state how many of each item of equipment has been assumed in the noise modelling and show their modelled locations on a map or drawing.	Section 6.2.1 has been updated to include this information and a new Appendix (E) presents the location of all operational plant.	
		104	4. Further detail is requested on how different rail noise sources have been incorporated into the noise model. This should include any adjustments to Leq,15min or Lmax predictions for trains moving over discontinuities on the spur line (such as turnouts) and also bunching and stretching noise.	Section 6.2.3 has been updated to include additional information regarding operational rail noise sources including curve/brake squeal and bunching.	
		105	5. There are inconsistencies between the equipment listed in the EIS and the equipment used in the noise modelling. Chapter 5 of the EIS states that three reach stackers will be used to unload a train and forklifts will be used to move empty containers. The noise report has not included forklifts in the noise modelling. The activities and equipment modelled should be reviewed and updated as appropriate.	Three reach stackers are included in the operational noise model. An empty container handler is also included, this is equivalent to a forklift.	
		106	6. The noise modelling does not appear to include any consideration of light vehicles. The noise contour plots in Appendix E appear to show a noise source has been considered on the light vehicle access road, however the noise report does not describe what this is. The light vehicle car park and access road has the potential to cause a noise impact since it is the closest noise source to residential receivers on the southern boundary and shift changeovers are likely to generate the highest number of vehicle movements during the day and night periods. The proponent should assess the impact of light vehicle noise sources	<p>The light vehicle access (and associated car parking) has been moved to Lee Holm Road and the Forrester Road entry is the designated heavy vehicle access.</p> <p>Remodelling of the revised heavy vehicle access has been completed and a noise barrier is proposed along the southern side of the internal entry road to mitigate noise impacts on sensitive receivers to the south.</p>	





GOVERNMENT AGENCY – NSW EPA					
			including vehicles entering and leaving the site, and car parking noise such as manoeuvring, engine starts and car door slams.	Truck and light vehicle movements have also been included around the site as described in section 6.2.1.	
		107	7. The proponent should confirm if assessment locations have been considered in accordance with NPfI Section 2.6 and are the reasonably most affected location on or within the property boundary. This is particularly important because the proponent has identified different mitigation outcomes for adjacent receivers. These outcomes are likely to be sensitive to small changes in noise levels and may significantly affect the assessment outcomes.	Yes, assessment locations are in accordance with the NPfI, that is the assessment points that are the reasonably most-affected points on, or within, the residential property boundary at a height of between 1.2-1.5 metres above ground level	
		108	8. The potential for annoying characteristics has not been assessed in accordance with NPfI Fact Sheet C. This assessment should be included in the noise report.	Section 6.2.2 has been updated to include the following clause:  <i>A 5 dB(A) correction has been added to LAeq assessment in the noise model to account for the impulsive characteristics of these events.</i>	
	MAXIMUM NOISE LEVELS	109	Previous experience suggests container ports have significant potential to cause impacts and controlling maximum noise levels, especially during the night is critical to manage impacts. The following items require further information or clarification from the proponent:		
		110	1. Managing the Lmax noise trigger levels exceedances through soft landing technology should be described further and quantified to demonstrate its effectiveness. Other Lmax noise event sources such as containers striking the hardstand, containers striking other containers and train or other vehicle horn use on site should also be addressed.	The performance of soft land technology has been tested and considered in the updated noise modelling in the post exhibition NVA.	
		111	2. Exceedances of the Lmax trigger level of up to 13 dB were predicted in NCA 2. The noise report should provide an investigation of feasible and reasonable mitigation measures which prioritise source and path measures, prior to investigating at-property treatments for maximum noise levels. If, after consideration of all reasonable and feasible mitigation, at- property treatment is recommended the proponent should ensure that any property treatment program would result in equitable outcomes. For example, a 13-dB exceedance of the Lmax trigger is predicted at 49 Kalang Avenue and is currently identified for at-property treatment. However, its next-door neighbour at 15 Camira Street is not proposed to be treated but is likely to receive similar levels of Lmax noise. This approach will result in significantly different mitigation outcomes for a relatively small difference in noise exposure and therefore may be perceived as an inequitable outcome. The proponent should review the mitigation approach and update it accordingly.	The performance of soft land technology has been tested and considered in the updated noise modelling in the post exhibition NVA.  Soft landing technology will reduce the exceedances in sleep disturbance criteria to acceptable levels. In addition, the use of rubber dampeners on containers will further mitigate noise levels for night time sleep disturbance.  Once noise testing and monitoring has been undertaken during the first 12 months of operation, comprehensive assessment of the residential buildings and noise attenuation requirements can be properly assessed.	
		112	3. The noise report shows that the number of maximum noise levels events will increase compared with the current noise environment. It is acknowledged that there are existing maximum noise events already occurring due to the rail line. However, the proponent should still investigate reasonable and feasible mitigation measures to reduce the number and noise level of maximum noise events at all potentially affected receivers.	The performance of soft land technology has been tested and considered in the updated noise modelling in the post exhibition NVA.  Soft landing technology will reduce the exceedances in sleep disturbance criteria to acceptable levels. In addition, the use of rubber dampeners on containers will further mitigate noise levels for night time sleep disturbance.  Once noise testing and monitoring has been undertaken during the first 12 months of operation, comprehensive assessment of the residential buildings and noise attenuation requirements can be properly assessed.	
		113	4. Reversing alarms have the potential to generate impacts, especially during the night period. The noise report should address the potential impact from reversing alarms and investigate feasible and reasonable mitigation including alternatives to reversing alarms.	The equipment used during the proposed extended work hours periods are to be fitted with Squawker Reversing Broadband Alarm units to mitigate noise impact at night time.	
	CONSTRUCTION ASSESSMENT	114	1. Maps in Appendix C of the noise report use highlighted buildings to identify impacted receivers. However, buildings are obscured by the road names. The maps should be updated so that individual buildings can be more easily identified.	Additional maps have been included in the post exhibition NVA to provide more legible detail on affected properties.	
		115	2. Section 5.4.1 of the noise report gives a summary of the number affected above the NML; however, it does not differentiate between residential and other receiver types. The report should provide a clear indication of the impacts in each NCA and the receiver types for each work package.	In the case of this proposal, receivers are generally residential. However, other affected sensitive non-residential receivers have been identified.	
		116	3. Construction must to be limited to standard hours: <ul style="list-style-type: none"><li>7am to 6pm Monday to Fridays</li><li>8am to 1pm Saturdays</li><li>No work Sundays and Public Holidays</li></ul>	The post exhibition noise assessment has been updated to include assessment of night time noise impacts from extended hours construction activities.  The assessment defines a works area within the development site where there is no noise impact from extended hours construction works on sensitive receivers due to imposing adequate separation distances (minimum 350m).  An Extended Work Hours Statement details the noise assessment modelling and compliance with the steps for assessing noise impacts in accordance with the Interim Construction Noise Guideline, which is included in Appendix 15.  Importantly, there is no impact on nearby residences from the proposed night time construction works.	

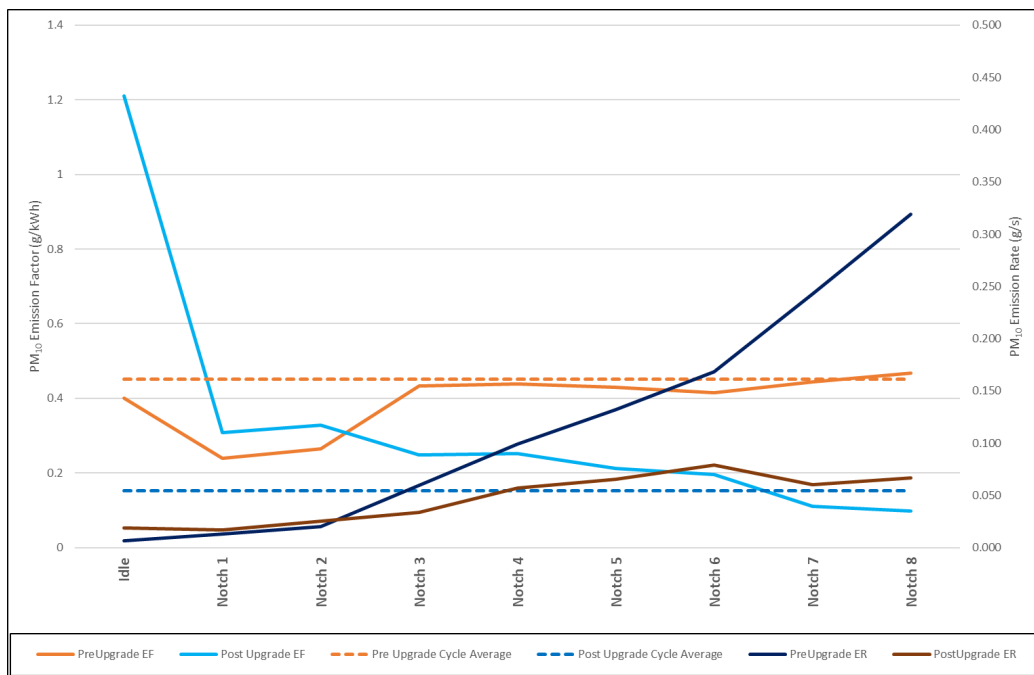


GOVERNMENT AGENCY – NSW EPA					
		117	4. A construction noise and vibration management plan should be used to manage construction impacts in accordance with the Interim Construction Noise Guideline (DECCW, 2011)	The Construction Environmental Management Plan (EMP) will include a Construction Noise and Vibration Management Plan, which is stated in the noise assessment report.	
	RECOMMENDATION	118	Consider the EPA comments and recommendations to manage noise and vibration impacts from the project.	Noted.	
AIR QUALITY					
	ASSESSMENT OF CONSTRUCTION PHASE AIR QUALITY IMPACTS	119	The Air Quality Impact Assessment assesses construction phase impacts utilising a semi- quantitative approach based on the methodology described in the UK Guidance document, Guidance on the assessment of dust from demolition and construction. The assessment approach considers bulk earthworks, construction, and track out (i.e. vehicle movement) activities and determines a risk rating for each of these activities. The risk ratings are based on consideration of magnitude or scale of the activities coupled with a consideration of location and sensitivity of receptors within proximity to the premises. It is noted that bulk earth works were determined to have the highest potential for dust emissions.	Noted. The contractor will need to undertake the works compliant to the EPA dust control requirements.	
		120	The Air Quality Impact Assessment concludes that the outcomes of the semi-quantitative air quality risk assessment show that the unmitigated air emissions from the construction phase of the Project pose a low risk of both dust soiling and human health impacts. The Air Quality Impact Assessment recommends general mitigation measures for managing the construction phase of the project. It is also noted that a Construction Environmental Management Plan is proposed to be developed prior to commencement of operations (as per Table 11 of the Environmental Impact Statement). If the project proceeds the proponent will have a regulatory obligation to prevent and minimise air pollution.	Noted.	
	ASSESSMENT OF OPERATIONAL PHASE AIR QUALITY IMPACTS	121	<p>The Air Quality Impact Assessment assesses the operational phase of the project based on predictive dispersion modelling and comparison of predicted ground level concentrations (GLC) with impact assessment criteria contained in the Approved Methods for Modelling and Assessment of Air Pollutants in NSW. A single operational scenario that assumes road vehicles, locomotives and container handling equipment in operation has been assessed. The assessment predicts:</p> <ul style="list-style-type: none"><li>▪ Compliance with PM10, NO2, CO, and air toxic impact assessment criteria</li><li>▪ Exceedances of the PM2.5 impact assessment criteria for 24 hour and an annual averaging period on a cumulative basis (accounting for existing background air quality). The increment (project only) GLC predictions are:</li><li>▪ PM2.5 (24 hour) of 2.2 ug/m3. The incremental prediction accounts for ~ 9 % of the cumulative prediction, as such the cumulative impacts are largely associated with existing background.</li><li>▪ PM2.5 (annual) of 0.6 ug/m3. The incremental prediction accounts for ~8% of the cumulative prediction, as such the cumulative impacts are largely associated with existing background.</li></ul>	<p>The AQIA was updated to provide additional information on locomotive emissions and clarify emission rates from some areas queried by NSW EPA.</p> <p>Compliance was demonstrated for PM10, CO and NO<sub>2</sub>.</p> <p>Additional exceedances of PM<sub>2.5</sub> 24-hour average were predicted to occur just beyond the boundary of the site within the industrial estate.</p> <p>Given the conservatism included in the assessment, compliance is expected at all residential and school receptor locations and adverse impacts were not expected as a result of the operation of the facility at neighbouring industrial developments.</p>	
	EPA POSITION ON NON-ROAD DIESEL EMISSIONS	122	The intermodal project could result in a freight transport mode shift from a regulated mode (on-road vehicles) to an unregulated mode (locomotive). Emissions from freight movement utilising diesel fired engines can be a significant source of air emissions, including particulate matter (particularly PM2.5) and air toxics (such as polycyclic aromatic hydrocarbons).	<p>Movement of the equivalent number of containers to Western Sydney from Port Botany requires the transport of approximately 436 truck movements per day via the M5 and M7 motorways for a total of 8.75 million vehicle kilometres travelled per year, much of which is on highly congested roadways.</p> <p>Truck emissions have been estimated to be as follows:</p> <ul style="list-style-type: none"><li>▪ 2.3 tonnes per year of Carbon Monoxide</li><li>▪ 15.5 tonnes per year of Nitrogen Oxides</li><li>▪ 0.7 tonnes per year of PM10 Particulates; and</li><li>▪ 0.4 tonnes per year of PM2.5 Particulates</li></ul> <p>When freight is transported by rail, emissions were estimated as follows</p> <ul style="list-style-type: none"><li>▪ 0.02 tonnes per year of Carbon Monoxide</li><li>▪ 0.2 tonnes per year of Nitrogen Oxides</li><li>▪ 0.0039 tonnes per year of PM10 Particulates; and</li><li>▪ 0.0037 tonnes per year of PM2.5 Particulates</li></ul> <p>As shown above, the movement of containers by rail has the potential to remove a significant quantity of trucks from an already congested road network (M4 and M7) and significantly reduce emissions from the Sydney airshed with the transport by more efficient rail transport.</p>	
		123	Emission standards for road vehicles are set within the Australia Design Rules (ADRs) administered by the Australian Government under the Motor Vehicle Standards Act 1989. There are currently no non-road diesel emission standards (including for locomotives) at state or national level in Australia.	<p>NSW has no emission standards for non-road diesel emissions (such as diesel forklifts and locomotives). The following text was extracted from the <i>Reducing Emissions from Non-road Diesel Engines: An information report prepared for the NSW EPA</i> prepared in 2014.</p> <p><i>“Despite consuming less diesel fuel than road transport nationally, the non-road diesel sector is estimated to produce higher fine particle emissions than on-road diesel vehicles.</i></p> <p><i>Whereas on-road diesel vehicles have been subject to increasingly stringent emission standards and state and territory emission reduction programs, non-road diesel engine emissions have remained unregulated in Australia with the exception of engines applied in underground mining.</i></p>	

**GOVERNMENT AGENCY – NSW EPA**

				<p><i>Regulations for non-road diesel equipment have been implemented in the United States (US) and the European Union (EU) since the 1990s, and have subsequently been introduced by other jurisdictions including Canada, Japan, India, China, Brazil and Russia.</i></p> <p><i>US emission standards (expressed as Tier 1 to Tier 4) and EU emission standards (Stage I to Stage IV) are the most widely referenced and applied emission standards for non-road diesel engines, with most other jurisdictions introducing either US, EU or a combination of these standards. International trends in non-road diesel engine standards include increased stringency of emission standards, improved harmonisation and more extensive coverage of engine power rating ranges.”</i></p> <p>Despite there being no regulations in NSW, the St Marys facility has committed to the Industry Code of Practice and non-road emissions complying with Euro III emissions (for non-locomotive sources) and Tier O+ with Upgrade kits (following the next major Locomotive overhaul).</p>	
		124	Given the regulatory gap on emission standards for non-road diesel engines, the NSW EPA has been working towards improved emission performances for locomotives and other non-road diesel engines.	Noted	
		125	<p>The EPA considers that new proposals involving transport of freight by rail should benchmark proposed emission performances against best practice. This should include, at a minimum:</p> <ul style="list-style-type: none"><li>▪ achieving (as minimum) Tier O+ emission performances for existing locomotive fleet</li><li>▪ achieving (as minimum) Tier 3 emission performances for new locomotives; and</li><li>▪ benchmarking proposed emission standards for container handling equipment with consideration of Tier 4 emission performance standards or electrification</li></ul> <p>The above approach is consistent with commitments for controlling locomotive emissions for other recent intermodal projects in the Sydney region, such as the Moorebank Intermodal facility.</p>	<p>Rail freight fleets are not dedicated to single use projects such as the transport of freight from Port Botany to St Mary’s, rather the locomotives are assigned on an “as needed” basis and may change depending on the schedule. As a result, dictating a specific locomotive type to a single facility is considered to be an unrealistic expectation on the rail fleet operator.</p> <p>St Marys facility has committed to the Industry Code of Practice and reduction in emissions needs to be approached on a fleet basis with the fleet operators and not on a facility-by-facility basis which would result in regulation by condition rather than an approach whereby the whole fleet of locomotives is considered.</p>	
	ADDITIONAL INFORMATION AND COMMITMENTS REQUESTED TO ENABLE RECOMMENDED CONDITIONS OF APPROVAL	126	<p>The EPA advises that there are issues where additional information and assessment is required to enable recommended conditions of approval. Detailed comments relating to additional information and assessment requirements are provided in Attachment 2. The proponent should address all issues detailed in Attachment 2 as summarised below:</p> <ul style="list-style-type: none"><li>▪ Benchmark proposed locomotive emission performance standards with best practice, and provide specific commitment to achieve best practice locomotive emission performances standards</li><li>▪ Benchmark proposed container handling equipment performance standards with best practice and provide specific commitment to achieve best practice container handling emission performances (including consideration of electrification)</li><li>▪ Revise the Air Quality Impact Assessment to:<ul style="list-style-type: none"><li>– Assess potential impacts based on emission performances that reflect proposed commitments that have been benchmarked against best practice</li><li>– Include VOC specification profiles for assessing speciated VOC impacts</li><li>– Include more robust assessment of principal toxic air pollutants</li><li>– Include a more robust assessment of PM2.5 emissions from non-road mobile emission sources.</li></ul></li></ul>	<p>Benchmarking discussions have been provided as part of the revised AQIA. In short, the benchmarking discussions in relation to locomotives follow the same path as discussed above i.e. emissions from locomotives need to be considered from a fleet perspective.</p> <p>Non-road diesel emissions were assessed assuming Euro II emissions as a minimum standard. As there is no current standard in Australia, this is considered to at least provide a minimum standard for the site.</p> <p>The AQIA has been revised to:</p> <ul style="list-style-type: none"><li>▪ update the VOC speciation;</li><li>▪ assess the air toxics at, or beyond, the boundary (all pollutants have been assessed in this manner);</li><li>▪ include PAH emissions; and</li><li>▪ update the PM<sub>2.5</sub> emissions from the site (including concentration contours).</li></ul>	
	LOCOMOTIVE EMISSIONS PERFORMANCE	127	The emission factors utilised as the basis for the assessment of air quality impacts indicate the proponent is committing to locomotives that achieve Tier O+ emission standards	<p>The AQIA has modelled 2 scenarios, with scenario 1 assuming Tier O+ without upgrade kits and Scenario 2 assuming Tier O+ with upgrade kits installed.</p> <p>Pacific National are committed to the upgrading of its Tier O+ Loco’s to include upgrade kits as part of the next major overhaul.</p> <p>It should be noted that from a project specific perspective, the emissions post upgrade may actually be higher than pre-upgrade given the assumption that the St Marys facility will largely involve shunting and the locomotives operating at either idle setting or at Notch 2.</p>	



				<p>A comparison of the emission factors, cycle average and engine power has been prepared and is shown below.</p>  <table><caption>Estimated data from the PM10 Emission Factor and Rate graph</caption><thead><tr><th>Engine Power Notch</th><th>PreUpgrade EF (g/kWh)</th><th>Post Upgrade EF (g/kWh)</th><th>Pre Upgrade Cycle Average (g/kWh)</th><th>Post Upgrade Cycle Average (g/kWh)</th><th>PreUpgrade ER (g/s)</th><th>PostUpgrade ER (g/s)</th></tr></thead><tbody><tr><td>Idle</td><td>0.40</td><td>0.40</td><td>0.45</td><td>0.15</td><td>0.450</td><td>0.050</td></tr><tr><td>Notch 1</td><td>0.25</td><td>0.30</td><td>0.45</td><td>0.15</td><td>0.100</td><td>0.050</td></tr><tr><td>Notch 2</td><td>0.28</td><td>0.32</td><td>0.45</td><td>0.15</td><td>0.100</td><td>0.050</td></tr><tr><td>Notch 3</td><td>0.42</td><td>0.25</td><td>0.45</td><td>0.15</td><td>0.150</td><td>0.050</td></tr><tr><td>Notch 4</td><td>0.42</td><td>0.25</td><td>0.45</td><td>0.15</td><td>0.200</td><td>0.050</td></tr><tr><td>Notch 5</td><td>0.42</td><td>0.20</td><td>0.45</td><td>0.15</td><td>0.250</td><td>0.050</td></tr><tr><td>Notch 6</td><td>0.42</td><td>0.20</td><td>0.45</td><td>0.15</td><td>0.300</td><td>0.050</td></tr><tr><td>Notch 7</td><td>0.42</td><td>0.15</td><td>0.45</td><td>0.15</td><td>0.350</td><td>0.050</td></tr><tr><td>Notch 8</td><td>0.45</td><td>0.10</td><td>0.45</td><td>0.15</td><td>0.400</td><td>0.050</td></tr></tbody></table>	Engine Power Notch	PreUpgrade EF (g/kWh)	Post Upgrade EF (g/kWh)	Pre Upgrade Cycle Average (g/kWh)	Post Upgrade Cycle Average (g/kWh)	PreUpgrade ER (g/s)	PostUpgrade ER (g/s)	Idle	0.40	0.40	0.45	0.15	0.450	0.050	Notch 1	0.25	0.30	0.45	0.15	0.100	0.050	Notch 2	0.28	0.32	0.45	0.15	0.100	0.050	Notch 3	0.42	0.25	0.45	0.15	0.150	0.050	Notch 4	0.42	0.25	0.45	0.15	0.200	0.050	Notch 5	0.42	0.20	0.45	0.15	0.250	0.050	Notch 6	0.42	0.20	0.45	0.15	0.300	0.050	Notch 7	0.42	0.15	0.45	0.15	0.350	0.050	Notch 8	0.45	0.10	0.45	0.15	0.400	0.050	
Engine Power Notch	PreUpgrade EF (g/kWh)	Post Upgrade EF (g/kWh)	Pre Upgrade Cycle Average (g/kWh)	Post Upgrade Cycle Average (g/kWh)	PreUpgrade ER (g/s)	PostUpgrade ER (g/s)																																																																					
Idle	0.40	0.40	0.45	0.15	0.450	0.050																																																																					
Notch 1	0.25	0.30	0.45	0.15	0.100	0.050																																																																					
Notch 2	0.28	0.32	0.45	0.15	0.100	0.050																																																																					
Notch 3	0.42	0.25	0.45	0.15	0.150	0.050																																																																					
Notch 4	0.42	0.25	0.45	0.15	0.200	0.050																																																																					
Notch 5	0.42	0.20	0.45	0.15	0.250	0.050																																																																					
Notch 6	0.42	0.20	0.45	0.15	0.300	0.050																																																																					
Notch 7	0.42	0.15	0.45	0.15	0.350	0.050																																																																					
Notch 8	0.45	0.10	0.45	0.15	0.400	0.050																																																																					
		128	<p>The AQIA estimates emissions from locomotives based on emission factors published in the Diesel Locomotive Emission Upgrade Kit Demonstration Project – Fuel Efficiency Emissions &amp; Noise Testing report (ABMARC, 2015). Emission factors referenced for estimating air emissions are contained within Table 11 of the AQIA. The AQIA includes emission estimates for air pollutants for an idle locomotive and a locomotive moving under power at Notch 2. The AQIA does not discuss the emission standards that would be achieved with the locomotives proposed. The EPA has compared the emission factors from the AQIA with emission factors contained in ABMARC, 2015. Based on the comparison the assessed emissions within the AQIA appear to be based on locomotives that achieve emission performances consistent with Tier O+ (see Table 1 below). It is noted that there is a discrepancy between the AQIA emission factor for NOx with that contained in the ABMARC test report.</p>	<p>Noted, discussed above.</p> <p>The discrepancy discussed has been rectified in the emissions inventory.</p>																																																																							
		129		<p>The error has been rectified. It should be noted that the data was not actually used in the assessment as it was lower than the Idle emission rate which was adopted as a worst-case emission rate.</p>																																																																							
		130	<p>Given that the assessment is based on emission factors that are based on the implementation of engine upgrade kits that achieve Tier O+, then the EPA considers that the proponent is committing to achieving emission performances that achieve emission performance consistent with Tier O+ (or better). However, assessment information does not discuss proposed locomotive emission performances, assess proposed locomotive emission performances against best practice, or include specific commitments to emission performances.</p>	<p>Noted, discussed above.</p>																																																																							
		131	<p>Consistent with the EPA position on other locomotive projects, and the basis for the assessed air quality impacts, the EPA advises that the proponent should benchmark non-road diesel emission performance with best practice and, as a minimum commit to:</p> <ul style="list-style-type: none"><li>achieving (as minimum) Tier O+ emission performances for existing locomotive fleet</li><li>achieving (as minimum) Tier 3 emission performances for new locomotives.</li></ul>	<p>Noted, discussed above.</p>																																																																							
		132	<p>Recommendation: The proponent benchmark proposed locomotive emission performance against best practice and provide explicit commitment to locomotive emission performances consistent with best practice (including timelines for implementation). Clarification on the noted difference between assessed emission factor for NOx with that contained in ABMARC (2015) should also be provided.</p>	<p>The NOX emission factor error was 8.85g/kWh where the correct value was 9.85 g/kWh (0.754g/s).</p> <p>The Idling emission factor used for the assessment was 95.7g/kWh (1.504g/s). The maximum of these two emission rates was used for the assessment to ensure conservatism.</p>																																																																							
	CONTAINER HANDLING EMISSIONS PERFORMANCE	133	<p>The emissions factors utilised as the basis for the assessment of air quality impacts indicate the proponent is committing to container handling equipment that achieves Euro Stage III emission standards</p>	<p>Correct, discussed further above.</p>																																																																							



## GOVERNMENT AGENCY – NSW EPA

		134	The AQIA estimates emissions from mobile container handling equipment based on Euro Stage III emission standards. Emission factors are contained within Table 12 of the AQIA. However, assessment information does not include specific commitments to emission performances for container handling equipment or benchmark proposed emission performances against best practice, with consideration to the implementation of electrification of container handling equipment.	The facility would be willing to commit to an emission standard of Euro III emission factors for the site. It is noted that EPA recommend a comparison with Tier 4 standards from the US. These standards were examined, and they were lower. However, to ensure flexibility for the site and to ensure conservatism in the assessment, the Euro III standards were adopted.  It should be noted that there are no current standards enforced across NSW for non-road diesel emissions. Euro III emission standards appear to be a reasonable minimum standard for the St Mary's facility and the site would be willing to commit to those levels.	
		135	Consistent with the EPA's position on other locomotive projects, the EPA advises that the proponent should benchmark non-road diesel emission performance with best practice, including consideration of Tier 4 emission standards or electrification of container handling equipment.	Noted, discussed above.	
		136	Consistent with the EPA's position on other locomotive projects, the EPA advises that the proponent should benchmark non-road diesel emission performance with best practice, including consideration of Tier 4 emission standards or electrification of container handling equipment.	Noted as above.	
		137	Recommendation: The proponent benchmark proposed container handling equipment emission performance against best practice (with consideration of Tier 4 standards / electrification) and provide explicit commitment to emission performances consistent with best practice.	As above	
	AQIA – EMISSIONS & GROUND WATER CONCENTRATIONS	138	The AQIA potentially underestimates emissions from locomotives and hence potentially under predicts ground level concentrations.	Discussed above with reference to additional modelling scenarios and emission factor discussions.	
		139	As discussed above the AQIA estimates emissions from locomotives based on emission information published in ABMARC, 2015. The EPA notes that the cycled weighted emission factors derived from the testing conducted incorporating the Tier 0+ upgrade kits performed better than the Tier 0+ emission standards for some pollutants. For example: <ul style="list-style-type: none"> <li>▪ Cycle weighted PM emissions from the ABMARC testing with Tier 0+ upgrade kits for 81 class locomotives was 0.153 g/kWhr which is lower than the Tier 0+ standard of 0.270 g/kWhr.</li> </ul> Hence, where emission estimates are based solely on the AMBARC testing data, then emissions maybe underestimated (for the purposes of assessing potential worst-case impacts) where the proponent is committing to achieve Tier 0+ emission standards.	Noted, discussed above.	
		140	Recommendation: The AQIA be revised to assess potential impacts based on emission performances that reflect proposed commitments that have been benchmarked against best practice.	The AQIA has been modelled based on the locomotives and non-road diesel vehicle expected to be used for the project. Minimum standards assumed include Tier 0+ for locomotives and Euro III for non-road diesel vehicles.	
	AIR TOXINS	141	Assessment of air toxics require further information and assessment  The AQIA estimates benzene emissions from locomotives based on information contained in the 2008 NSW EPA Air Emissions Inventory. However, the AQIA does not include the speciation profile for VOCs including benzene. The EPA also notes that the 2008 NSW EPA Air Emissions Inventory includes emission estimates for other principal air toxics (such as 1,3-Butadiene, and Polycyclic Aromatic Hydrocarbons) from non-road emission sources. The AQIA does not assess potential impacts from principal air toxics other than benzene. Additionally, the AQIA does not advise on the VOC emission estimates (including speciation profiles) from other non-road emission sources (i.e. container handling equipment).	Additional modelling in the AQIA was undertaken to assess the following pollutants: <ul style="list-style-type: none"> <li>▪ Benzene</li> <li>▪ Toluene</li> <li>▪ Xylene</li> <li>▪ 1,3-Butadiene</li> <li>▪ PAH (as BaP)</li> </ul> All pollutants complied with the EPA criteria at or beyond the boundary.	
		142	For transparency, and validity of the assessment approach, the EPA considers that the proponent should revise the assessment to include assessment of other principal air toxics pollutants and include the VOC speciation profiles utilised for emission estimates.	All speciation has been updated in the AQIA.	
		143	Recommendation: The proponent revise the air quality impact assessment to: <ul style="list-style-type: none"> <li>▪ Include speciation profile adopted for assessing individual VOCs, with justification; and</li> <li>▪ Assess predicted impacts of other principal air toxics, including polycyclic aromatic hydrocarbons.</li> </ul>	Noted, refer above.	
	EMISSIONS - MOBILE PLANT	144	Assumed 9% of PM10 as PM2.5 from assessed mobile plant not appropriate	Emissions inventory in the AQIA was updated with PM <sub>2.5</sub> :PM <sub>10</sub> ratio of 90% for mobile plant. Model was re-run and the results presented in the AQIA	
		145	The AQIA includes emission estimates for mobile plant and equipment based on emission factors for Euro Stage III emission standards. Emission factors are contained within Table 12 of the AQIA. Table 12 of the AQIA states that PM2.5 emissions from mobile equipment are based on assuming that 9 % of PM10 is PM2.5. the EPA do not agree with this assumption.	Noted, refer above.	
		146	The EPA considers that PM2.5 makes up a much large portion of PM10 than 9 %. This is supported by the emission estimates contained in the 2008 NSW EPA Air Emissions Inventory, in which PM2.5 emission from locomotives and industrial off-road equipment accounts for approximately 97 % of PM10 emission estimates.	Noted, refer above.	





GOVERNMENT AGENCY – NSW EPA					
		147	Recommendation: The proponent revise the air quality impact assessment to include a more robust assessment of PM2.5 emissions from proposed emission sources.	PM2.5 re-run with updated data. Contemporaneous assessment and concentration contours included in the AQIA.	
	RECOMMENDATIONS	148	Consider the EPA's comments and the proponent address the issues described above.	Refer above.	
CONTAMINATION					
	METHODOLOGY	149	The Preliminary Site Contamination Assessment (Appendix 11 of the EIS) included a desktop study with field sampling of soil and groundwater (four boreholes to 10.5 m below ground surface (m bgs), 13 test pits to maximum 3.3 mbgs). The study identified that large portions of site were formerly owned by James Hardie and Coy Limited from 1969 to 1984 but there was no evidence of asbestos manufacture on site. The study reported that the site surface was stripped following JH&C's departure, and the material was placed in a stockpile on site (SP3). This study identified trace asbestos containing material (1 sample) on site surface and multiple stockpiles of waste materials on site. Copper, zinc and manganese were reported in groundwater above ecological screening levels. Historical reports reviewed indicated the presence of some traces of toluene and total recoverable hydrocarbon contamination at the site. The study recommended to conduct a further investigation to further investigate areas of concern including but not limited to former activities by JH&C (in particular stockpile SP3), fuel and chemical leaks and spills and stockpile areas.	Noted.	
		150	The Groundwater Level Assessment (Appendix 17 of the EIS) is based on the installation and monitoring of five groundwater monitoring wells (four located on site). Wells were gauged with by installation of data-loggers and barometric loggers, and manual dip-level meters. The assessment concluded that groundwater would be encountered from approximately 3 m bgs across the site during the investigation (December 2018 to February 2019), and was generally consistent in variability. The report indicated that most proposed development is expected to occur above the local groundwater table.	Noted.	
		151	The Supplementary Contamination Assessment (Appendix 12 of the EIS) comprised of more test pitting and surface soil sampling across the site and AECs including test pitting of the various stockpiles. The investigation confirmed the presence of anthropogenic materials across the site and buried as fill. Polycyclic Aromatic Hydrocarbons (principally benzo(a)pyrene), with Metals (Copper and Arsenic) contamination was encountered in a number test pits in excess of environmental screening levels. Asbestos was detected in 10L bulk samples collected from a northern area of the site (TP208 and TP205, and in TP205 at levels exceeding commercial/industrial health screening criteria) and pesticides were identified in Stockpile SP4 exceeding scheduled chemical waste criteria. The report concluded the suspected asbestos containing material or indicators of potential asbestos contamination, were not observed in the PAEC 3 stockpile test pits. The assessment concluded the site could be made suitable for the proposed development if the northern portion of the site was remediated. Isolated pockets of contamination to be present in untested areas of the site were proposed to be managed under an unexpected finds protocol.	Noted.	
		152	The Remediation Action Plan (RAP) (Appendix 13 of the EIS) provided appears to be a high level or 'conceptual RAP' that deals solely with asbestos. There are several remedial options presented including excavation and off-site disposal, treatment and re-use on site, and use of a containment cell. None have been chosen as the preferred option. The RAP does not include consideration of several relevant points of information including: <ul style="list-style-type: none"><li>What is the anticipated volume of the asbestos contaminated material to be encountered or remediated?</li><li>What about the other contaminated material such as the pesticide contaminated soil, and stockpiles of waste and rubbish on site?</li></ul>	<p>A delineation survey assessment has now been undertaken to better define the extent of asbestos contamination and inform the proposed method of remediation in accordance with the EPA sustainability guidelines.</p> <p>Accordingly, the Remediation Action Plan (RAP) has been updated based on the additional information and a remediation method has been determined for the asbestos.</p> <p>In addition, the RAP also addressed the treatment of the other contaminated material. The updated RAP is in Appendix 11.</p>	
		153	One of the options considered is to treat asbestos contaminated soils by mixing with clean material on site, then reusing the soil at depth on site. The EPA does not support this option. All works dealing with asbestos contaminated material require continuous air quality monitoring by appropriately qualified persons.	<p>Proposed containment of the asbestos material is in accordance with the preferred hierarchy of options for site remediation outlined in the following documents:</p> <ul style="list-style-type: none"><li>NSW EPA Contaminated Land Management – Guidelines for the NSW Site Auditor Scheme - Section 4.3.2 – This basically sets out that an auditor has to consider sustainability and refers to the hierarchy of options set out in NEMP which are endorsed by the EPA; and</li><li>NEPM (Assessment of Site Contamination) Measure 1999 – Section 16 (Attainment of Environmental Outcome) sets out the preferred hierarchy of options.</li></ul> <p>The first two remediation options (on and offsite treatment) outlined in NEPM do not apply due to the presence of friable asbestos, as it is essentially impossible to treat friable asbestos.</p> <p>The next option in the preferred hierarchy is onsite containment and capping.</p>	
	ADEQUACY OF MITIGATION MEASURES	154	The Preliminary Site Contamination Investigation is considered generally adequate for purpose, however the EPA notes that insufficient samples were collected to fully characterise areas of concern, and that the report recommended additional investigation be undertaken. The EPA notes the method of asbestos analyses undertaken for the preliminary investigation (presence versus absence) is a qualitative assessment and should be followed up by quantitative means to confirm results obtained.	Additional investigation and assessment have been undertaken of Stockpile No.3 and the assessment report is included in Appendix 9. The additional testing confirms there is no additional contamination issues or remediation requirements.	



GOVERNMENT AGENCY – NSW EPA

		155	The Groundwater Level Investigation did not provide any reasoning for the placement of the wells, but they appear to be located across the site. No discussion on the potential beneficial uses of the groundwater was provided, but the EPA notes that high connectivity with the groundwater associated with South Creek is expected due to the proximity of the site to the riparian corridor. The expected groundwater levels of ~3 m bgs should be taken as indicative only, as report and regional data indicates groundwater standing water levels could vary from 2.5 to 7 m bgs. The EPA agrees with the Groundwater Level Investigation report recommendations that consultations and approvals from Water NSW will be needed if the proposed works intercept the local aquifer (at whatever depth), and management of seepage water is needed.	Noted.	
		156	The Supplementary Contamination Assessment reported on further soil testing across several areas of environmental concern. The test pit sampling undertaken at PAEC 3 (identified as the material that was in a stockpile, stripped off the site following James Hardie ownership) was at 30% of the minimum density recommended in the EPA (1995) Sampling Design Guidelines. As such there has been insufficient sampling to fully characterise and identify potential asbestos present in this stockpile. In addition, the surface of the soil which was previously tested for asbestos on a detect/non-detect basis should be confirmed through further quantitative testing. The EPA recommends further sampling be undertaken to confirm the presence and quantities of asbestos on site.	Further testing has been undertaken at 100% of the minimum density recommended by the EPA.	
		157	The RAP has several deficiencies, and the EPA recommends, subject to further sampling, that a detailed RAP be developed to calculate extent of contaminated material, and better identify the preferred remedial strategy.	<p>A delineation survey assessment has now been undertaken to better define the extent of asbestos contamination and inform the proposed method of remediation in accordance with the EPA sustainability guidelines.</p> <p>Accordingly, the RAP has been updated based on the additional information and a remediation method has been determined for the asbestos.</p> <p>In addition, the RAP also addressed the treatment of the other contaminated material. The updated RAP is in Appendix 11.</p>	



3.2 NSW DEPARTMENT PLANNING, INDUSTRY AND ENVIRONMENT (DPIE)

GOVERNMENT AGENCY – NSW DEPARTMENT PLANNING, INDUSTRY AND ENVIRONMENT (DPIE)					
KEY ISSUE	DETAILED ISSUE	ITEM NUMBER	SUBMISSION COMMENT	PROPONENT RESPONSE	CHANGE
GENERAL					
	RESPONSE REQUIRED	158	<div>The Department requires that you provide a response to the issues raised in those submissions in accordance with clause 85A(2) of the Environmental Planning and Assessment Regulation 2000. In addition, the Department has identified supplementary key issues relating to:<ul style="list-style-type: none"><li>Operational traffic impacts to the local road network;</li><li>Operational rail noise impacts;</li><li>Out-of-hours activities and assessment; and</li><li>Flooding and stormwater management.</li></ul></div>	Noted.	
TRAFFIC AND TRANSPORT					
	TRAFFIC AND TRANSPORT	159	Further information is required to confirm the operational traffic impacts to the local road network surrounding the development.	<div>In response to PCC concerns regarding the use of Lee Holm Road for heavy vehicle access and egress a detailed truck route assessment has now been undertaken to reassess the proposed access arrangements presented in the EIS (Option 1).</div> <div>Three (3) additional Options (2-4) have been considered to ascertain the best route with the least impact on the local road network and amenity taking into account operational, safety and local impacts on the network and adjacent land uses. Use of Lee Holm Road for heavy vehicle access is no longer proposed.</div> <div>The preferred Option 4 will utilise Forrester Road for heavy vehicle access and provides the most efficient access to the M4 Western Motorway and customer destinations in Western Sydney, including Wetherill Park, Erskine Park, Eastern Creek and Marsden Park.</div> <div>The truck distribution onto the surrounding road network was carefully considered based on a detailed customer data for existing deliveries to and from Port Botany.</div> <div>The truck routes selected ensure that heavy vehicles will only use approved B-double routes and Classified State and Regional Roads.</div> <div>The proposed route (Option 4) is the shortest and the most appropriate path to their destination that will maximise safety and mitigate impacts on the local road network and surrounding amenity.</div> <div>The use of NSW Government Classified Roads and approved B-Double routes are designated for this type and volume of traffic as generated by the proposed development.</div> <div>The post exhibition Traffic and Transport Assessment has considered the intersection performance and there is no significant impact on the local road network from a safety, capacity and functionality perspective.</div>	The Freight Hub has been redesigned to accommodate Option 4 – with light vehicle access and egress now via Lee Holm Drive and Truck access and egress via Forrester Road.
		160	The Submission Report must respond in detail to concerns raised by Penrith Council reading operational traffic, particularly regarding the acceptability of heavy vehicle routes to and from the site, predicted trip generation, and the assessment of impacts to intersections.		
		161	<div>As part of this consideration, please advise whether upgrades and other mitigation measures may be required to achieve the objectives of not exceeding the capacity of the following intersections, and facilitating heavy vehicle travelling paths on:<ul style="list-style-type: none"><li>Lee Holm Drive/Christie Street</li><li>Christie Street/Forrester Road</li><li>Forrester Road/Glossop Street</li><li>Dunheved Road / Christie Street</li></ul></div>		
		162	The Department notes Council's concerns regarding the proposed haul routes to and from the M4 Western Motorway. As part of your response, please outline available options for heavy vehicle access from the site to the arterial road network, and an assessment of each option.		
		163	The Department has concerns about the use of Lee Holm Road and, in particular, the suitability of that road to accommodate two-way truck movements and safe access and egress from the proposed site access at an intensity proposed by the development. Please consider and assess if road widening is required to ensure a safe and operable standard is maintained along Lee Holm Road.		
		164	Where the assessment identifies the need to widen the road, the applicant must consult and engage with Council on this road widening, prior to submitting the RTS.		
NOISE					
	NOISE	165	An assessment is required of brake squeal, wagon bunching and curve squeal from trains using the siding to access the site. Please provide an assessment of these matters, and mitigation measures required to monitor and manage residual impacts.	The post exhibition Noise and Vibration Assessment (NVA) has considered and assessed noise squeal and mitigation measures.	
		166	<div>The EIS indicates that out of hours construction works are required, however, no assessment or justification has been provided. Clarify the following:<ul style="list-style-type: none"><li>Type of activities required to be undertaken out-of-hours;</li><li>Predicted noise impacts;</li><li>Proposed mitigation measures including respite periods.</li></ul></div>	<div>The post exhibition NVA has been updated to include assessment of night time noise impacts from extended hours construction activities.</div> <div>The assessment defines a works area within the development site where there is no noise impact from extended hours construction works on sensitive receivers due to imposing adequate separation distances (minimum 350m).</div> <div>An Extended Work Hours Statement detailing the type of low-impact construction works proposed, noise assessment modelling results and</div>	



GOVERNMENT AGENCY – NSW DEPARTMENT PLANNING, INDUSTRY AND ENVIRONMENT (DPIE)

				<p>compliance with the Interim Construction Noise Guideline is included in Appendix 15.</p> <p>There is no impact on nearby residences from the proposed night time construction works with the implementation of the proposed constructions management plan.</p> <p>Irrespective, additional mitigation measures are proposed to ensure all possible safeguards are in place to avoid any adverse impacts from night time construction activity.</p>	
FLOODING AND STORMWATER					
	FLOODING AND STORMWATER	167	The Department notes concerns raised by Penrith Council in relation to the modelling of hydrological and flooding impacts. The Submissions Report must address modelling constraints deferred in the EIS to detailed design, including consideration of the NSW Government Floodplains Development Manual, the Local Environment Plan and Council’s Development Control Plan for Flood Liable Lands.	<p>The post exhibition Flood Impact Assessment has been updated to account for the deferred items and included within the modelling in an appropriate way.</p> <p>The report has been prepared to consider the NSW Government’s Floodplain Development Manual and NSW Flood Policy, Penrith Local Environment Plan 2010 (PLEP 2010) and PCC’s Development Control Plan (DCP) for Flood Liable Land as well as the requirements of the SEARS.</p>	
		168	Provision of a detailed water balance for the site in accordance with the SEARs for the project.	The post exhibition Stormwater Management Plan includes a detailed water balance for the site.	
		169	The Submissions Report must respond to Penrith Council and the EPA concerns in relation to construction management of stormwater runoff, particularly with regard to Managing Urban Stormwater, Soils and Construction Volumes 1 and 2 and in relation to the existing stormwater basins.	<p>Construction water management has been addressed within the post exhibition Stormwater Management Plan with controls put in place to protect existing basins.</p> <p>Detail regarding erosion and sediment control have been included within the report, including reporting and maintenance requirements</p>	
		170	The Submissions Report must provide further detail on the quantitative assessment and management of water quality objectives in accordance with the NSW Water Quality Objectives and ANZECC Guidelines.	<p>The post exhibition Stormwater Management Plan provides further details on the assessment and management of water quality objectives (WQOs).</p> <p>Updated modelling and reporting have been included.</p>	



3.3 NSW ENVIRONMENT, ENERGY AND SCIENCE GROUP (EES), DEPARTMENT PLANNING, INDUSTRY AND ENVIRONMENT (DPIE)

GOVERNMENT AGENCY – NSW DEPARTMENT PLANNING, INDUSTRY AND ENVIRONMENT’S ENVIRONMENT, ENERGY AND SCIENCE GROUP (EES)					
KEY ISSUE	DETAILED ISSUE	ITEM NUMBER	SUBMISSION COMMENT	PROPONENT RESPONSE	CHANGE
BIODIVERSITY					
	BIODIVERSITY ASSESSMENT REPORT	171	It is noted that the Biodiversity Development Assessment Report (BDAR) doesn't list PCT 1071 as a threatened ecological community (TEC), presumably because the BDAR considers that this wetland is not remnant or naturally occurring wetland. Further justification for this assessment should have been included in the BDAR, in section 1.4.4 of the report. It is noted that the Scientific Committee’s description of the community states that only artificially created wetlands don’t meet the definition of the TEC, suggesting that PCT 1071 on site may meet the definition.	<p>Detailed in Section 1.4.3.3 and 1.4.4 of the updated BDAR provided in Appendix 13.</p> <p>PCT 1071 is listed as ‘partially subset of’ the TEC ‘Freshwater Wetlands on Coastal Floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions’. This means that the PCT and TEC do overlap in some locations but can also occur independently of each other.</p> <p>While there are species consistent in the PCT consistent with the TEC (including <i>Typha orientalis</i> and <i>Persicaria decipiens</i>), the PCT 1071 in the development site is not considered to be consistent with the TEC Freshwater Wetlands on Coastal Floodplains.</p> <p>Within the development site, PCT 1071 is located in two artificial detention basins in the north of the development site, and in an artificial drainage ditch in the south of the development site. The NSW Scientific Determination for the EEC Freshwater Wetlands on Coastal Floodplains states that “<i>artificial wetlands created on previously dry land specifically for purposes such as sewerage treatment, stormwater management and farm production, are not regarded as part of this community, although they may provide habitat for threatened species</i>”.</p> <p>The PCT in the development site would fall into this category of artificial wetland, as the detention basins are expected to have been constructed for stormwater management.</p> <p>The drainage depression in the south of the development site is not associated with any natural drainage lines and is therefore considered to be an artificial wetland.</p> <p>While the larger wetland in the north-east of the development site is adjacent to River Flat Eucalypt Forest and near a natural drainage line, it is higher in the landscape than the drainage line and is not a part of the natural drainage system and is therefore considered artificial.</p> <p>Therefore, PCT 1071 within the development site is not consistent with the EEC Freshwater Wetlands on Coastal Floodplains.</p>	
		172	The BDAR should provide a brief description of areas not mapped as native vegetation, including percentage of exotic / native species, so it is clear these could not be classed as native vegetation.	<p>The BDAR has been updated in Section 1.4.5 and 1.4.6 to describe these areas. The areas are dominated by exotic grasses including <i>Eragrostis curvula</i> (African Love Grass), <i>Chloris gayana</i> (Rhodes Grass) and <i>Cynodon dactylon</i> (Couch).</p> <p>Other invasive species are common throughout cleared areas including <i>Verbena bonariensis</i> (Purple Tops), <i>Cirsium vulgare</i> (Spear Thistle), <i>Gomphocarpus fruticosus</i> (Narrow-leaved Cotton Bush) and <i>Senecio pterophorus</i>.</p> <p>While regrowth native species may occur very sporadically throughout this vegetation type such as <i>Acacia longifolia</i> (Sydney Golden Wattle) and <i>Acacia parramattensis</i> (Parramatta Wattle), the total native cover is estimated to be less than 5%.</p> <p>Where patches of native vegetation occurred sporadically throughout the north of the cleared area, these patches were attributed to PCT 1800 (degraded) as <i>Casuarina glauca</i> (Swamp Oak) was the dominant species. This Cleared/Exotic does not require further assessment in accordance with Section 10.4.1.1 of the BAM</p>	
		173	Table 10 states that no individuals of <i>Grevillea juniperina</i> ssp. <i>Juniperina</i> were recorded on the site, it is assumed this is a typing error	The typing error in Table 10 of the BDAR has been updated accordingly.	





GOVERNMENT AGENCY – NSW DEPARTMENT PLANNING, INDUSTRY AND ENVIRONMENT’S ENVIRONMENT, ENERGY AND SCIENCE GROUP (EES)

		174	The BDAR should have included justification for the mapping of the Myotis macropus species polygon as shown in Figure 7 and also made reference to the NSW survey guide ‘Species credit threatened bats and their habitats’ (OEH 2018)	<p>The BDAR has been updated to include additional reference and justification in Section 1.6.1 of the BDAR.</p> <p>Species credit threatened bats and their habitats have been referenced.</p> <p>Species polygon for Myotis macropus provided. The polygon includes all PCTs within 200m of dams and waterways which contain foraging habitat for Myotis macropus.</p>	
		175	Table 14 and 15 of the BDAR addresses Chapter 8 of the Biodiversity Assessment Method (BAM) in relation to the actions taken to avoid biodiversity impacts. While it is acknowledged that redesign has achieved a reduction in the biodiversity impacts, some biodiversity impacts are still proposed. Justification should also have been provided in the BDAR for the impacts that have not been avoided.	<p>Table 15 of the BDAR has been expanded to address the biodiversity impacts of the development and justify these impacts.</p> <p>Changes to the proposed development stemming from the exhibition of the EIS and resulting submissions has been further addressed in the BDAR.</p> <p>It is acknowledged that the proposed development will result in a residual impact on native vegetation, threatened ecological communities and threatened species habitat. The residual impacts are considered unavoidable in the scope of the proposed development.</p> <p>The footprint has largely utilised cleared areas and patches of degraded vegetation or regrowth. Where possible, areas of native vegetation and threatened species habitat have been avoided. The following outcomes have been considered in justification of residual biodiversity impacts:</p> <ul style="list-style-type: none"><li>▪ Habitat connectivity will be maintained with the retained with the majority of the vegetated corridor in the north of the site to be retain</li><li>▪ Where achievable within the scope of the development, impacts to vegetation and Grevillea juniperina have been avoided</li><li>▪ The footprint has been refined to minimise biodiversity impacts.</li><li>▪ Designing surface water treatment to minimise downstream impacts</li><li>▪ Impacts on native vegetation and threatened species will be offset in accordance with the Biodiversity Offsets Scheme (BOS).</li></ul>	
		176	Table 26 includes recommendation that a vegetation management plan is prepared to protect and enhance retained vegetation. This is supported by OEH, particularly given the areas of retained vegetation are so small, that without active management they are unlikely to persist in the long term. However, the species to be planted in these areas and adjacent to these areas should be appropriate for the vegetation type. The EIS states that “The landscape design has adopted endemic species from the Mitchell Landscapes. Hawkesbury-Nepean Channel to complement the existing native vegetation being retained onsite”. OEH recommends that the species to be planted should be derived from species lists for the relevant Plant Community Type, using Figure 3 of the BDAR as a guide. Plants should be sourced from locally endemic provenance material.	<p>The species to be planted as part of the landscape design will be derived from the species list for the relevant Plant Community Type, using Figure 3 of the BDAR as a guide.</p>	
		177	The BDAR does not include a matching credit profile, as required in Table 26 of the BAM.	<p>The BDAR has been updated to include a Biodiversity Credit Report in Appendix D of the report.</p>	



3.4 NSW LANDS WATER AND DEPARTMENT OF PRIMARY INDUSTRIES (DPI), NSW DEPARTMENT PLANNING, INDUSTRY AND ENVIRONMENT (DPIE)

GOVERNMENT AGENCY – NSW DEPARTMENT PLANNING, INDUSTRY AND ENVIRONMENT – LANDS, WATER AND DEPARTMENT OF PRIMARY INDUSTRIES (DPI)					
KEY ISSUE	DETAILED ISSUE	ITEM NUMBER	SUBMISSION COMMENT	PROPONENT RESPONSE	CHANGE
DPIE WATER AND THE NSW NATURAL RESOURCES ACCESS REGULATOR					
WATER					
	WATER USAGE	178	Please provide a detailed site water balance outlining the site's water use during construction and operation of the project so that we understand your water usage.	A site water balance has been provided that shows the expected construction and operational water usage over an annual period. This is based on best practice and contractor input.	
	WORKS ON WATERFRONT LAND	179	Works on waterfront land should be carried out in accordance with the Guidelines for Controlled Activities (2012) <a href="https://www.industry.nsw.gov.au/water/licensingtrade/approvals/controlled-activities">https://www.industry.nsw.gov.au/water/licensingtrade/approvals/controlled-activities</a> .	Noted.	
	POST APPROVAL MONITORING	180	The proponent is to maintain the existing monitoring bore network, with the inclusion of any additional bores as specified in the project documentation, for the purposes of routine groundwater level and quality monitoring for the life of the development.	Noted.	
		181	The proponent is to implement the following monitoring activities. <ul style="list-style-type: none"><li>▪ Daily groundwater level measurements commencing immediately once consent is granted and continuing for a period of two years.</li><li>▪ Thereafter monitoring of groundwater levels at frequency agreed to by DPIE-Water (note that if DPIE-Water is not consulted within the initial two year period, or has not in that time agreed to a comprehensive water monitoring plan for the project, groundwater monitoring is to continue on daily basis indefinitely).</li><li>▪ Groundwater quality sampling and testing annually for the department standard suite of parameters (subject to variation by EPA requirements if agreed to by DPIE-Water, otherwise to continue on yearly basis indefinitely).</li><li>▪ Records of all groundwater level and quality measurements and results are to be maintained for the life of the development.</li><li>▪ Five years after commencing monitoring, the proponent is to conduct a trends analysis of groundwater level and quality data.</li></ul>	Noted.	
		182	The proponent is to provide an annual report including the period of record data in electronic format to a dedicated webpage, or to DPIE-Water.	Noted.	
		183	The proponent should provide additional information to clarify where the specifics of conditions described within the SEARs have been addressed, as the referenced parts of the EIS do not include obvious consideration of some of the requirements.	Noted.	
DEPARTMENT OF PRIMARY INDUSTRIES (DPI) FISHERIES					
SOUTH CREEK					
	SEDIMENT CONTROL	184	The proposed St Marys Intermodal development is located adjacent to South Creek. In the past 12 months we've received complaints from our stakeholders, including commercial fishers in the Hawkesbury River, regarding high volumes of sediment making its way down South Creek and into the Hawkesbury River. We have also received reports from stakeholders regarding sediment runoff to South Creek from construction sites.	Noted.	
		185	Sediment runoff has a negative impact on water quality, fish and aquatic vegetation in our creeks and rivers. For example, we have received advice from commercial fishers in the Hawkesbury River regarding the abnormal behaviour of prawns in the presence of high levels of suspended sediments. As such, erosion and sediment control are of paramount importance to DPI Fisheries for construction sites along South Creek.	Noted.	
		186	The proponent will need to provide extensive detail on how erosion and sedimentation will be managed throughout the construction and operational phases of this project. DPI Fisheries would like to review the Erosion and Sediment Control Plan and the Stormwater Management Plan once they are prepared, at least 4 weeks prior to site works commencing.	An Erosion and Sediment Control Plan will be provided as part of CEMP prior to construction.	



3.5 NSW TRANSPORT ROADS AND MARITIME SERVICES

GOVERNMENT AGENCY – NSW TRANSPORT, ROADS AND MARITIME SERVICES					
KEY ISSUE	DETAILED ISSUE	ITEM NUMBER	SUBMISSION COMMENT	PROPONENT RESPONSE	CHANGE
GENERAL					
	NO OBJECTION	187	No objection to development application	Noted.	



### 3.6 TRANSPORT FOR NSW

GOVERNMENT AGENCY – TRANSPORT FOR NSW					
KEY ISSUE	DETAILED ISSUE	ITEM NUMBER	SUBMISSION COMMENT	PROPONENT RESPONSE	CHANGE
TRANSPORT					
	WESTERN SYDNEY CORRIDOR	188	<p>In March 2018, TfNSW exhibited recommended corridors for Western Sydney, including the Outer Sydney Orbital (OSO) and the North South Rail Line (NSRL). Coinciding with the announcement, the DPIE released a discussion paper proposing a SEPP to protect Western Sydney Corridors. The proposed SEPP, under Section 3.14(1)(c) of the <i>Environmental Planning and Assessment Act 1979</i>, identifies the land required for future infrastructure projects in Western Sydney including the OSO and NSRL.</p> <p>It is noted that the proposed St Marys Freight Hub is within the exhibited corridors of both the OSO and NSRL.</p> <p>The summary of the discussion points from the meeting on 29 November 2018 are noted. It is advised that the comments provided were general in nature and any detail on final alignment, elevations and corridor boundaries will be subject to detailed design.</p>	Noted.	
		189	<p>The principles proposed in Section 9.2.4 of the EIS (p. 81) to ensure that both the OSO and Freight Hub can exist without significant disruption are supported.</p> <p>The stated principles were as follows:</p> <ul style="list-style-type: none"><li>▪ Limit all loading/unloading of trains to the loading area in this proposal.</li><li>▪ Maintain ongoing consultation and communication with TfNSW regarding the design and delivery of the OSO project.</li><li>▪ Ensure future buildings and structures maintain adequate vertical and horizontal separation to the OSO.</li><li>▪ The full functionality of the rail corridor is to be maintained for its full length within Pacific National's parcel of land.</li></ul>	Noted.	
		190	<p>In order to maintain the integrity of the transport corridors, all parties are requested to work closely with DPIE to minimise the impact of the development on the proposed corridors.</p>	Noted.	
	BACKLOADING RATE	191	<p>The Traffic and Transport Assessment (Bitzios, March 2019) has assumed a 100% back-loading rate (i.e. all heavy vehicles will carry containers in both directions; none will return with no container). Any empty running when picking up a full or dropping off an empty container will result in daily truck movements greater than 436 trucks/day.</p>	<p>The operational plan for the site is based solely on collecting full containers from trains/the site and delivering empty containers back to the site/trains.</p>	
		192	<p>It is requested that the Applicant undertake a sensitivity analysis on the traffic generation calculations based on less than 100% back-loading rate (potentially a step analysis that considers 60% and 80% back-loading rates). This sensitivity analysis would assist DPIE in assessing the potential impact on the road network should the stated back-loading rates are not achieved in the operation of the facility.</p>	<p>There is absolutely no expectation that full containers will be delivered back to the site, or that trucks would leave empty; there is no logistical rationale for this proposition.</p> <p>Notwithstanding this, even if the truck-traffic generation numbers were doubled, the volumes through the key intersections are insignificant compared to background traffic demands.</p> <p>Additional modelling would certainly demonstrate no additional impacts based on the modelling results produced to date. On this basis, re-running the models is not considered necessary.</p>	
NOISE					
	RAIL NOISE	193	<p>Section 6.2.4 of the Noise and Vibration Assessment (AECOM, March 2019) describes the rail noise sources that were modelled. However, brake squeal, wagon bunching and curve squeal has not been assessed.</p>	<p>The post exhibition Noise and Vibration Assessment has been updated to include assessment of noise generated within the boundary and the freight hub.</p> <p>The assessment also considers rail noise on the rail spur which services the site. A copy of the updated Noise and Vibration Assessment Report is provided in Appendix 5. to this report.</p>	
		194	<p>The Freight Access and Performance Branch at TfNSW have previously measured noise from Pacific National freight trains accessing the existing siding at St Marys. Observations indicate that brake squeal was audible as the train was stopping. Furthermore, a number of noise complaints have been received from residents in Camira Street and Kalang Avenue, specifically relating to loud squeal noise from freight trains in the siding.</p>	Noted.	
		195	<p>Section 6.6.1 of the Noise and Vibration Assessment states that six (6) properties on Kalang Avenue would qualify for at-property noise treatments, however, it is unclear whether other properties in catchment NCA02 also qualify for noise mitigation, including dwellings along Camira Street.</p>	<p>Modelling in the noise assessment predicts that only six (6) properties may require at-property noise attenuation treatments.</p>	
		196	<p>Finally, the EIS and Noise and Vibration Assessment does not commit to use of best practice wagons for their port shuttle service in line with other Intermodal Terminal (IMT) approvals. The following is suggested to DPIE to be made as standard IMT requirements (including St Marys):</p> <ul style="list-style-type: none"><li>▪ best practice noise control on their proposed port shuttle, including wagon steering to minimise wheel squeal and electronically controlled pneumatic braking systems;</li></ul>	Noted.	



GOVERNMENT AGENCY – TRANSPORT FOR NSW

			<ul style="list-style-type: none"><li>▪ permanent noise monitoring systems with associated reporting and provision of digital data records to the Secretary;</li><li>▪ provision of angle of attack wayside monitoring with associated reporting and provision of digital data records to the Secretary; and</li><li>▪ policies and procedures that demonstrate acceptance, monitoring and reporting on locomotive and rolling stock’s performance communicated to operators using the St Marys Freight Hub.</li></ul>		
		197	<p>It recommended that the Applicant:</p> <ul style="list-style-type: none"><li>▪ assesses noise from brake squeal, wagon bunching and curve squeal from trains using the siding to access the proposed St Marys Freight Hub.</li><li>▪ updates the Noise and Vibration Assessment to provide justification as to why other properties in catchment NCA02 would not be eligible for noise mitigation measures.</li></ul>	<p>Assessment of brake squeal has been included in the post exhibition Noise and Vibration Assessment.</p> <p>Modelling in the noise assessment predicts that only six (6) properties may require at-property noise attenuation treatments.</p>	
	NOISE CONTOUR DATA	198	<p>Suggested Condition:</p> <ul style="list-style-type: none"><li>▪ The Proponent shall supply the DPIE with the LAeq(period) and LAFmax noise contour data for the entire project in an electronic format suitable for input to a GIS.</li></ul> <p>Reason:</p> <ul style="list-style-type: none"><li>▪ This data would be used to inform future strategic planning for the area with relation to noise.</li></ul>	<p>Noted.</p>	





3.7 NSW RURAL FIRE SERVICE

GOVERNMENT AGENCY - NSW RURAL FIRE SERVICE					
KEY ISSUE	DETAILED ISSUE	ITEM NUMBER	SUBMISSION COMMENT	PROPONENT RESPONSE	CHANGE
BUSH FIRE PROTECTION					
	GENERAL	199	The New South Wales Rural Fire Service (NSW RFS) has considered the information submitted and has no specific recommendations in relation to bush fire protection.	Noted.	



3.8 AIR SERVICES AUSTRALIA

GOVERNMENT AGENCY – AIR SERVICES AUSTRALIA					
KEY ISSUE	DETAILED ISSUE	ITEM NUMBER	SUBMISSION COMMENT	PROPONENT RESPONSE	CHANGE
AIRSPACE					
	AIRSPACE PROCEDURES	200	<p>With respect to procedures designed by Airservices in accordance with ICAO PANS-OPS and Document 9905, at a maximum height of 44.5m (146ft) AHD, the property development will not affect any sector or circling altitude, nor any instrument approach or departure procedure at Westmead HLS, Bankstown Airport or Richmond (NSW) Airport.</p> <p>The property development will not affect Sydney Radar Terrain Clearance Chart (RCTT)</p> <p>Note that procedures not designed by Airservices at Westmead HLS, Bankstown or Richmond (NSW) Airport were not considered in this assessment.</p>	Noted. The nature and type of infrastructure provision will not detrimentally affect Sydney Radar Terrain or navigational aids.	
	COMMUNICATIONS / NAVIGATION/ SURVEILLANCE (CNS) FACILITIES	201	The property development, to a maximum height of 44.5m (146ft) AHD, will not adversely impact the performance or Precision / Non-Precision Navigational Aids, HF/VHF Communications, A-SMGCS, Radar, PRM, ADS-B, WAM or Satellite/Links	Noted. The nature and type of infrastructure provision will not detrimentally affect Sydney Radar Terrain or navigational aids.	



3.9 SYDNEY WATER

GOVERNMENT AGENCY - SYDNEY WATER					
KEY ISSUE	DETAILED ISSUE	ITEM NUMBER	SUBMISSION COMMENT	PROPONENT RESPONSE	CHANGE
SERVICES					
	DRINKING AND WASTEWATER	202	<p>Sydney Water Servicing</p> <p>While there are existing drinking water and wastewater services within the vicinity of the proposed development, Sydney Water required more information in relation to:</p> <ul style="list-style-type: none"><li>▪ staging and expected water usage</li><li>▪ staging and expected wastewater</li><li>▪ details on expected number of employees</li></ul>	<p>This is being dealt with directly with Sydney Water via points of supply and build over applications.</p>	
		203	<p>The developer should engage a Water Servicing Coordinator (WSC) to manage the drinking water and wastewater servicing requirements of their development. The WSC will be the applicants point of contact with Sydney Water. The WSC can answer most questions the applicant might have on Sydney Water's developer process and charges. For a list of authorised Coordinators either visit <a href="http://www.sydneywater.com.au">www.sydneywater.com.au</a> &gt; Plumbing, building and developing&gt;Developing&gt;Providers&gt; Lists or call 132092</p>	<p>Lucid Consulting Australia has been engaged via the D&amp;C Contractor McMahon Services Australia Pty Ltd for such purposes.</p>	
		204	<p>The above advice is not a formal approval of our servicing requirements. Detailed requirements, including any potential extensions or amplifications will be provided once the applicant has provided Sydney Water with information or expected water usage and wastewater discharge, and as development is referred to Sydney Water for a Section 73 Application.</p>	<p>A section 73 application process has commenced.</p>	



3.10 ENDEAVOUR ENERGY

GOVERNMENT AGENCY – ENDEAVOUR ENERGY					
KEY ISSUE	DETAILED ISSUE	ITEM NUMBER	SUBMISSION COMMENT	PROPONENT RESPONSE	CHANGE
SERVICES					
	ELECTRICITY EASEMENTS	205	<p>A detailed copy of the Endeavour Energy Submission is available from the NSW DPIE planning portal <a href="https://www.planningportal.nsw.gov.au/major-projects/project/10636">https://www.planningportal.nsw.gov.au/major-projects/project/10636</a> The submission is summarised as follows.</p> <p>As shown in the below site plan from Endeavour Energy's G/Net master facility model (and extracts from Google Maps Street View) there are:</p> <p>Easements over the site benefitting Endeavour Energy for:</p> <ul style="list-style-type: none"><li>132,000 volt / 132 kilovolt (kV) high voltage overhead power lines to the northern part of Lot 3 DP 876781 and crosses Lot 196 DP 31912.</li><li>11,000 / 11 kV high voltage and 33,000 volt / 33 kV high voltage overhead power lines to the northern part of Lot 3 DP 876781 (overlaps onto adjoining Lot 2 DP 734445) and crosses Lot 196 DP 31912 (rail corridor) which is not held under easement but easement then continues to the west over Lot 2031 DP 815293.</li><li>11 kV high voltage underground cables adjoins eastern side boundary of Lot 3 DP 876781 for padmount substation no. 27811 located on Lot 100 DP 1136503.</li><li>11 kV high voltage overhead power lines to the southern end of Lot 2 DP 876781 and crosses the rail corridor.</li><li>33 kV high voltage overhead power lines crosses Lot 196 DP 31912 towards the north but not held under easement – easement to the western side and easement to eastern side for high voltage customer substation no. 8146 on Lot 1 DP 586640.</li><li>To the Lee Holm Road verge / roadway of Lot 3 DP 876781 low voltage and 11 kV high voltage overhead power lines including pole mounted substation no. 16488.</li><li>To the Forrester Road verge / roadway of Lot 2 DP 876781 low voltage and 11 kV high voltage overhead power lines and low voltage underground cables.</li><li>To the Christie Street road verge / roadway of Lot 196 DP 31912 low voltage underground cables.</li></ul> <p>Please note the location, extent and type of any electricity infrastructure, boundaries etc. shown on the plan is indicative only. Generally (depending on the scale and/or features selected), low voltage (normally not exceeding 1,000 volts) is indicated by blue lines and high voltage (normally exceeding 1,000 volts but for Endeavour Energy's network not exceeding 132,000 volts / 132 kV) by red lines (these lines can appear as solid or dashed and where there are multiple lines / cables only the higher voltage may be shown). This plan only shows the Endeavour Energy network and does not show electricity infrastructure belonging to other authorities or customers owned electrical equipment beyond the customer connection point / point of supply to the property. This plan is not a 'Dial Before You Dig' plan under the provisions of Part 5E 'Protection of underground electricity power lines' of the <i>Electricity Supply Act 1995</i> (NSW).</p> <p>In regard to any electricity infrastructure on the site, which is not held under easement, they are protected assets under the <i>Electricity Supply Act 1995</i> (NSW) Section 53 'Protection of certain electricity works'. The owner or occupier of the land cannot take any action by reason of the presence or operation of the electricity works in, on or over the land i.e. they cannot remove the electricity infrastructure from the property. These protected assets are managed on the same basis as if an easement was in existence- please refer to the below point 'Easement Management / Network Access'.</p>	<p>Noted. Any impact on power infrastructure will be dealt with directly with the affected Authority via the application process utilising an accredited services consultant being Lucid Consulting Australia.</p>	
	RECOMMENDATION	206	<p>Subject to the following recommendations and comments Endeavour Energy has no objection to the Development Application.</p>	<p>Noted.</p>	
	ASSETS STRATEGY & BRANCH  NETWORK CAPACITY / CONNECTION	207	<p>Endeavour Energy's Asset Strategy &amp; Planning Branch whilst not having undertaken a detailed analysis of the Planning Proposal have provided the following advice:</p> <ul style="list-style-type: none"><li>The proposed St Marys Intermodal Freight Terminal is located approximately 2 kilometres from Endeavour Energy's Werrington Zone Substation (ZS) located at 242-246 Forrester Road St Marys (Lot 102 DP 31911). Werrington ZS has sufficient capacity for new developments and can support this development.</li><li>Two 11 kV feeders are in vicinity of this site: no's 35773 and 35763. These feeders have some spare capacity, depending on the size of proposed load. A new 11 kV feeder from Werrington ZS to the site may be required.</li><li>132kV feeders no's 933 and 936 from TransGrid's Regentville Bulk Supply Point to Endeavour Energy's Mount Druitt Transmission Substation cross this property. 33kV feeder no. 497 from Werrington ZS to Cambridge Park ZS also crosses this property. These feeders are not related to electricity supply to the site. If these feeders need to be relocated, this will be assessed through formal asset relocation process which could be done as part of the application for connection of load to the site.</li></ul>	<p>Noted.</p>	



- Please see the following sketch which indicates the location of the above-mentioned high voltage feeders.



ASSETS STRATEGY &  
BRANCH

APPLICATION FOR  
CONNECTION LOAD

208

From and Asset Strategy & Planning Branch point of view, there is no objections to the proposed development.

A proper load assessment by the customer's Level 3 Accredited Services Provider (ASP) or Consultant Engineer and Endeavour Energy's Capacity Planner will be needed to determine the best method of connection and any reconfigurations and upgrades. The customer is urged to engage with an Electrical Consultant prior to finalising plans in order to assess and incorporate the appropriate electricity infrastructure into the proposed development. The customer will need to make application for the connection of load as per Endeavour Energy's normal customer connection processes.

In due course the applicant for the proposed development of the site will need to submit an application for connection of load via Endeavour Energy's Network Connections Branch to carry out the final load assessment and the method of supply will be determined. Depending on the outcome of the assessment, any required padmount substation/s will need to be located within the property (in a suitable and accessible location) and be protected (including any associated cabling) by an easement and associated restrictions benefiting and gifted to Endeavour Energy. Please refer to Endeavour Energy's Mains Design Instruction MDI 0044 'Easements and Property Tenure Rights'. Further details are available by contacting Endeavour Energy's Network Connections Branch via Head Office enquiries on telephone: 133 718 or (02) 9853 6666 from 8am - 5:30pm or on Endeavour Energy's website under 'Home > Residential and business > Connecting to our network' via the following link:

<http://www.endeavourenergy.com.au/>

Advice on the electricity infrastructure required to facilitate the proposed development (including asset relocation) can be obtained by submitting a Technical Review Request to Endeavour Energy's Network Connections Branch, the form for which FPJ6007 is attached and further details (including the applicable charges) are available from Endeavour Energy's website under 'Our connection services'. The response to these enquiries is based upon a desktop review of corporate information systems, and as such does not involve the engagement of various internal stakeholders in order to develop a 'Connection Offer'. It does provide details of preliminary connection requirements which can be considered by the applicant prior to lodging a formal application for connection of load. Alternatively, the applicant should engage an Accredited Service Provider (ASP) of an appropriate level and class of accreditation. The ASP scheme is administered by NSW Planning & Environment and details are available on their website via the following link or telephone 13 77 88:

Noted and will be subject to the detailed design development phase of the works.





			<a href="https://energysaver.nsw.gov.au/households/you-and-energy-providers/installing-or-altering-your-electricity-service">https://energysaver.nsw.gov.au/households/you-and-energy-providers/installing-or-altering-your-electricity-service</a> .		
	ASSETS STRATEGY & BRANCH  URBAN NETWORK DESIGN	209	Endeavour Energy's Company Policy 9.2.5 'Network Asset Design', includes requirements for electricity connections to new urban subdivision / development that must be met. (Full details are available in the full submission on the NSW DPIE planning portal <a href="https://www.planningportal.nsw.gov.au/major-projects/project/10636">https://www.planningportal.nsw.gov.au/major-projects/project/10636</a> )	Noted.	
	BUSHFIRE RISK - ELECTRICITY	210	NSW Rural Fire Service 'Planning for Bush Fire Protection 2006' as a general bush fire protection measures requires that electricity should be located so as not to contribute to the risk of fire or impede the fire fighting effort.  The network required to service the proposed development must be fit for purpose and meet the technical specifications, design, construction and commissioning standards based on Endeavour Energy's risk assessment associated with the implementation and use of the network connection / infrastructure for a bushfire prone site. In assessing bushfire risk, Endeavour Energy has traditionally focused on the likelihood of its network starting a bushfire, which is a function of the condition of the network. Risk control has focused on reducing the likelihood of fire ignition by implementing good design and maintenance practices. However, safety risks associated with the loss of electricity supply are also considered.	Noted.	
	FLOODING AND DRAINAGE - SUBSTATION	211	Distribution substation should not be subject to flood inundation i.e. the padmount substation cubicles are weatherproof not flood proof. Section 7 'Substation and switching stations' of Endeavour Energy's Mains Construction Instruction MCI 0006 'Underground distribution construction standards manual' provides the following details of the requirements for addressing flooding in new padmount substation locations.	Noted. Suitable location of transformer and site switch boards will be subject to detailed design considerations and submitted for approval as part of the application process with the respective power authority.	
	STREET LIGHTING	212	With the significant increase in both vehicular and pedestrian traffic, given the existing streetlighting is designed for a non-urban environment, the streetlighting for the proposed development should be reviewed and if necessary upgraded to comply with the series of standards applying to the lighting of roads and public spaces set out in with Australian/New Zealand Standard AS/NZS 1158: 2010 'Lighting for roads and public spaces' as updated from time to time.  Whilst the determination of the appropriate lighting rests with the road controlling authority, Endeavour Energy as a Public Lighting Service Provider is responsible for operating and maintaining the streetlights on behalf of local councils, Roads and Maritime Services and other utilities in accordance with the NSW Public Lighting Code, January 2006 (Code). Endeavour Energy recognises that well designed, maintained and managed Public Lighting offers a safe, secure and attractive visual environment for pedestrians and drivers during times of inadequate natural light.  For any Code implementation and administration / technical matters please contact Endeavour Energy's Substation Mains Assets Section via Head Office enquiries on telephone: 133 718 or (02) 9853 6666 from 8am - 5:30pm or email <a href="mailto:mainsenquiry@endeavourenergy.com.au">mainsenquiry@endeavourenergy.com.au</a> .	Noted. The updated access option that utilises two-way access at Forrester Road entrance with Glossop Street/Forrester Road as the nearest intersection accommodating inbound and outbound movements is an approved classified Super B-Double road approved by Roads and Maritime should address the concerns raised.	
	EARTHING	213	The construction of any building or structure (including fencing, signage, flag poles, hoardings etc.) whether temporary or permanent that is connected to or in close proximity to Endeavour Energy's electrical network is required to comply with Australian/New Zealand Standard AS/NZS 3000:2018 'Electrical installations' as updated from time to time. This Standard sets out requirements for the design, construction and verification of electrical installations, including ensuring there is adequate connection to the earth. Inadequate connection to the earth to allow a leaking/fault current to flow into the grounding system and be properly dissipated places persons, equipment connected to the network and the electricity network itself at risk from electric shock, fire and physical injury.	Noted. The D&C Contractor is required to ensure its design meets all statutory requirements.	
	EASEMENT - TERMS	214	The following is a summary of the usual / main terms of Endeavour Energy's electrical easements requiring that the landowner: <ul style="list-style-type: none"><li>▪ Not install or permit to be installed any services or structures within the easement site.</li><li>▪ Not alter the surface level of the easement site.</li><li>▪ Not do or permit to be done anything that restricts access to the easement site without the prior written permission of Endeavour Energy and in accordance with such conditions as Endeavour Energy may reasonably impose.</li></ul> Endeavour Energy's preference is for no activities or encroachments to occur within its easement areas. Most activities are prohibited within the padmount substation easement area. However, if any proposed works (other than those approved / certified by Endeavour Energy's Network Connections Branch as part of an enquiry / application for load or asset relocation project) will encroach/affect Endeavour Energy's easements or protected assets, contact must first be made with the Endeavour Energy's Easements Officer, Jeffrey Smith, on direct telephone 9853 7139 or alternately email <a href="mailto:Jeffrey.Smith@endeavourenergy.com.au">Jeffrey.Smith@endeavourenergy.com.au</a> or <a href="mailto:Easements@endeavourenergy.com.au">Easements@endeavourenergy.com.au</a> .  Please find attached for the applicant's reference copies of Endeavour Energy's: <ul style="list-style-type: none"><li>▪ General Restrictions for Overhead Power Lines.</li><li>▪ Mains Design Instruction MDI 0044 'Easements and Property Tenure Rights' which in Section 5.14 'Encroachments on overhead line easements' deals with activities / encroachments within easements.</li><li>▪ Guide to Fencing, Retaining Walls and Maintenance Around Padmount Substations - for the padmount substation/s required to facilitate the proposed development.</li></ul> It is imperative that the access to the existing electrical infrastructure on and in proximity of the site be maintained at all times. To ensure that supply electricity is available to the community, access to the electricity infrastructure may be required at any time. Restricted access to electricity infrastructure by maintenance workers causes delays in power restoration and may have severe consequences in the event of an emergency.	Noted. The D&C Contractor has a contractual obligation to ensure its design meets all statutory requirements.	



	PRUDENT AVOIDANCE	215	<p>The electricity network is operational 24/7/365 i.e. all day, every day of the year. The electricity industry has adopted a policy of prudent avoidance by doing what can be done without undue inconvenience and at modest expense to avert the possible risk to health from exposure to emissions from electricity infrastructure such as electric and magnetic fields (EMF) and noise which generally increase the higher the voltage i.e.. Endeavour Energy's network ranges from low voltage (normally not exceeding 1,000 volts) to high voltage (normally exceeding 1,000 volts but not exceeding 132,000 volts / 132 kV).</p> <p>In practical terms this means that when designing new transmission and distribution facilities, consideration is given to locating them where exposure to the more sensitive uses is reduced and increasing separation distances. These emissions are generally not an issue but with Council's permitting or encouraging development with higher density, reduced setbacks and increased building heights, new development can impact on existing electricity infrastructure. Even then noise levels can vary, and people perceive sounds differently so to minimise any potential exposure to intrusive noise, the siting towards the electricity infrastructure of less susceptible uses such as garages, non-habitable or rooms not regularly occupied in the dwelling / building is recommended. This will also assist in reducing exposure to EMF.</p> <p>Where development is proposed in the vicinity of electricity infrastructure, Endeavour Energy is not responsible for any amelioration measures for such emissions that may impact on the nearby proposed development. Endeavour Energy believes that likewise Council should also adopt a policy of prudent avoidance by the siting of more sensitive uses away from any electricity infrastructure - including any possible future electricity infrastructure required to facilitate the proposed development.</p> <p>Please find attached a copy of Energy Networks Association's 'Electric &amp; Magnetic Fields - What We Know' which can also be accessed via their website at <a href="http://www.ena.asn.au/">http://www.ena.asn.au/</a> and provides the following advice:</p> <ul style="list-style-type: none"><li>▪ Electric fields are strongest closest to their source, and their strength diminishes rapidly as we move away from the source.</li><li>▪ The level of a magnetic field depends on the amount of the current (measured in amps) and decreases rapidly once we move away from the source.</li></ul> <p>Typical magnetic field measurements associated with Endeavour Energy's activities and assets given the required easement widths, safety clearances etc. and having a maximum voltage of 132,000 volt / 132 kV, will with the observance of these separation distances do not exceed the recommended magnetic field public exposure limits.</p>	Noted. The D&C Contractor has a contractual obligation to ensure its design meets all statutory requirements.	
	VEGETATION MANAGEMENT	216	<p>The planting of large trees in the vicinity of electricity infrastructure is not supported by Endeavour Energy. Suitable planting needs to be undertaken in proximity of electricity infrastructure. Only low growing shrubs not exceeding 3.0 metres in height, ground covers and smaller shrubs, with non-invasive root systems are the best plants to use. Larger trees should be planted well away from electricity infrastructure (at least the same distance from overhead power lines as their potential full grown height) and even with underground cables, be installed with a root barrier around the root ball of the plant. Landscaping that interferes with electricity infrastructure may become a potential safety risk, cause of bush fire, restrict access, reduce light levels from streetlights or result in the interruption of supply. Such landscaping may be subject to Endeavour Energy's Vegetation Management program and/or the provisions of the <i>Electricity Supply Act 1995</i> (NSW) Section 48 'Interference with electricity works by trees' by which under certain circumstances the cost of carrying out such work may be recovered.</p>	Noted.	
	DIAL BEFORE YOU DIG	217	<p>Before commencing any underground activity, the applicant is required to obtain advice from the <b><i>Dial Before You Dig</i> 1100</b> service in accordance with the requirements of the <i>Electricity Supply Act 1995</i> (NSW) and associated Regulations. This should be obtained by the applicant not only to identify the location of any underground electrical and other utility infrastructure across the site, but also to identify them as a hazard and to properly assess the risk.</p>	Noted. This is a contractual obligation for the D&C Contractor to perform this task prior to undertaking any works.	
	EXCAVATION	218	<p>The applicant should be advised of the object of Section 49A 'Excavation work affecting electricity works' of the of <i>Electricity Supply Act 1995</i> (NSW) covering the carrying out or proposed carrying out of excavation work in, on or near Endeavour Energy's electrical infrastructure.</p> <p>If any excavation work affects Endeavour Energy's electricity infrastructure, prior contact must be made to Endeavour Energy's Regional Services North via Head Office enquiries on telephone: 133 718 or (02) 9853 6666 from 8am - 5:30pm or alternately email <a href="mailto:Regional.ServicesNorth@endeavourenergy.com.au">Regional.ServicesNorth@endeavourenergy.com.au</a> .</p>	Noted.	
	PUBLIC SAFETY	219	<p>Workers involved in work near electricity infrastructure run the risk of receiving an electric shock and causing substantial damage to plant and equipment. I have attached Endeavour Energy's public safety training resources, which were developed to help general public / workers to understand why you may be at risk and what you can do to work safely. The public safety training resources are also available via Endeavour Energy's website via the following link:</p> <p><a href="http://www.endeavourenergy.com.au/wps/wcm/connect/ee/nsw/nsw+homepage/communitynav/safety/safety+brochures">http://www.endeavourenergy.com.au/wps/wcm/connect/ee/nsw/nsw+homepage/communitynav/safety/safety+brochures</a></p> <p>If the applicant has any concerns over the proposed works in proximity of the Endeavour Energy's electricity infrastructure to the road verge / roadway, as part of a public safety initiative Endeavour Energy has set up an email account that is accessible by a range of multiple stakeholders across the company in order to provide more effective lines of communication with the general public who may be undertaking construction activities in proximity of electricity infrastructure such as builders, construction industry workers etc. The email address is <a href="mailto:Construction.Works@endeavourenergy.com.au">Construction.Works@endeavourenergy.com.au</a> .</p>	Noted.	
	EMERGENCY CONTACT	220	<p>In case of an emergency relating to Endeavour Energy's electrical network, the applicant should note the Emergencies Telephone is 131 003 which can be contacted 24 hours/7 days.</p>	Noted.	



4. SPECIAL INTEREST GROUP SUBMISSIONS

4.1 BLACKTOWN & DISTRICTS ENVIRONMENT GROUP

SPECIAL INTEREST GROUP - BLACKTOWN & DISTRICTS ENVIRONMENT GROUP				
KEY ISSUE	DETAILED ISSUE	ITEM NUMBER	SUBMISSION COMMENT	PROPONENT RESPONSE
GENERAL				
	PROCEDURAL PROCESS	221	<p>Firstly, I lodge my objection to the bureaucratic introduction of a changed process that requires a person or entity to register through a convoluted system should that person wish to lodge a submission on a matter on exhibition.'</p> <p>What was wrong with the former process?</p> <p>You are doing exactly what the government wants to achieve and that is make it difficult for the public and thus discourage community consultation in planning matters. You are a disgrace to open government and community engagement. You all play your part in making this a closed, behind-the-scenes, structured/organised State.</p> <p>Having said that I don't expect any favourable consideration to the content of my submission but that then does not make me wrong in what I say. The problem is you road blocks to open government and a better environment.</p>	<p>Noted.</p>
BIODIVERSITY				
	LOSS OF REMNANTS ECOLOGICAL COMMUNITIES	222	<p>Blacktown &amp; District Environment Group Inc objects to the loss of remnants of ecological communities on the site of the proposed Intermodal at St Marys. Offsetting off site through biobanking or other means still results in a net loss and continued reduction of extent of ecological communities and species overall and in representation within the proposed development site.</p>	<p>As addressed in response to Item # 175 above the footprint has largely utilised cleared areas and patches of degraded vegetation or regrowth. Where possible, areas of native vegetation and threatened species habitat have been avoided.</p> <p>The following outcomes have been considered in justification of residual biodiversity impacts:</p> <ul style="list-style-type: none"><li>▪ Habitat connectivity will be maintained with the retained with the majority of the vegetated corridor in the north of the site to be retain</li><li>▪ Where achievable within the scope of the development, impacts to vegetation and Grevillea juniperina have been avoided</li><li>▪ The footprint has been refined to minimise biodiversity impacts.</li><li>▪ Designing surface water treatment to minimise downstream impacts</li><li>▪ Impacts on native vegetation and threatened species will be offset in accordance with the Biodiversity Offsets Scheme (BOS).</li></ul>
WETLANDS				
	WETLAND & LITTLE CREEK	223	<p>We are also concerned about the impact of the development on the wetland and Little Creek at the northern end of the proposed Intermodal site. We note the site footprint includes a portion of the wetland.</p> <p>It is not clear to us what it means to the wetland by having a boundary line for the Intermodal transecting part of the wetland. The wetland would be of importance for habitat and foraging for fauna. The recording of presence of the Southern Myotis, a BC Act listed species, is consistent with the species use of the wetland for foraging. The wetland must be protected intact and without hindrance to gliding approach and over the wetland.</p>	<p>The existing dam is a former sediment basin from the historic use of the site for importation of material from the Northside Sewer Tunnel Project.</p> <p>A Dam Dewatering Plan has been prepared for the former sediment basin to ensure any native fauna is conserved and protected.</p> <p>The developable area has been reduced and an anaerobic basin is proposed to mitigate impact on downstream riparian wetland areas in keeping with the water quality state objectives and local government guidelines.</p> <p>It is noted that the water quality standards met by the proposed development exceed that stated in PCC water quality requirements.</p>
	DISCHARGE	224	<p>The NSW Government commissioned Urban Bushland Biodiversity Study,1997, identified the ecological value of rural dams. This wetland falls sits within that category.</p> <p>One need not look too far away from this site and a little further downstream along South Creek to an incident a few years ago of human error which caused the poisoning of native fauna including the Australian Bass species in great number. This error came from an industrial site in St Marys.</p> <p>It is important to redress that human failing which involves the hosing or pouring of toxic substances into drains within domestic but more so within industrial and commercial premises. We note that the site drains to the north and therefore into the wetland and Little Creek. A site proposed to store large quantities of storage containers with almost any sort of contents as well as a site being a hive of truck activity is a potent recipe for contaminants and pollution beyond the site. Trucks are notorious for leaking fuel and oil.</p> <p>All drains on site should drain to in-site storage areas which will be pumped out periodically for waste matter to be taken away to suitable toxic substance disposal venues. Stormwater run-off into drains and then into in-site storage areas generally emptied of toxic substances will not then be such a hazard to fauna within the wetland, into Little Creek and further downstream into South Creek and the Hawkesbury River as overflows occur. The wetland should not become, over time, a reservoir of toxic waste.</p>	<p>The existing dam is a former sediment basin from the historic use of the site for importation of material from the Northside Sewer Tunnel Project.</p> <p>Water quality has been tested as part of the Dam Dewatering Plan and the waterbody can be discharged directly into Little Creek with the implementation of management measures.</p>



## 5. CORPORATE AND INDIVIDUAL SUBMISSIONS

### 5.1 CHARTER HALL

CORPORATE AND INDIVIDUAL - CHARTER HALL				
KEY ISSUE	DETAILED ISSUE	ITEM NUMBER	SUBMISSION COMMENT	PROPONENT RESPONSE
GENERAL				
	GENERAL GROUNDS OF OBJECTION	225	<p>Charter Hall's grounds of objection to SSD 7309 relate to the following matters:</p> <ul style="list-style-type: none"><li>▪ The five-month construction timeframe set out in the proposed Construction Program is overly ambitious. It is likely that this Construction Program timeframe would in fact take longer to complete. It is therefore also likely that the construction period dust and traffic impacts assessed as part of SSD 7309 could, in fact, last for a longer period of time compared to what has been assessed;</li><li>▪ The Construction Program set out in the Environmental Impact Statement (EIS) does not align with the construction Work Packages which were used to assess the construction phase of SSD 7309 within the Noise and Vibration Assessment. Moreover, the Draft Traffic Management Plan provides another variation of the proposed Construction Program breakdown. These inconsistencies should be reconciled;</li><li>▪ The Air Quality Impact Assessment has not considered the potential of SSD 7309 to impact on Medium-Sensitivity Receptors, which are places of work where exposure is likely to be eight hours or more in a day. Indeed, Lot 2220 DP1172926 (owned by Charter Hall) is immediately adjacent to Lot 2 DP876781 which forms part of SSD 7309;</li><li>▪ It is not possible to ascertain the exact construction period traffic impacts of SSD 7309, as the Draft Construction Traffic Management Plan lacks adequate detail;</li><li>▪ The Noise and Vibration Assessment identifies that vibration intensive works may include the use of vibrating rollers and similar equipment. The minimum working distances of these items of equipment from off-site receivers are based on recommendations of the TfNSW Construction Noise and Vibration Strategy (CNVS). It is considered that the existing built form on the Charter Hall site is located at a sufficient distance from the proposed SSD 7309 construction works so as to not endure cosmetic building damage. However, works could still take place within an adequate distance (i.e. within 100m) of the workers and visitors at the Charter Hall site so as to allow these persons to experience construction vibration impacts;</li><li>▪ Modelled mapping prepared as part of the Flood Impact Assessment indicates that the extent of flooding impacts from Little Creek could be increased slightly at the Charter Hall site with SSD 7309 in place. Willowtree therefore challenges the validity of the claim made in the Desktop Flood Study and Flood Impact Assessment that: The proposed development is not considered to expose any resident to unacceptable levels of risk or property to unreasonable damage and will not increase flood hazard or risk to other properties; and</li><li>▪ Adequate consideration has not been given to the proposed Dangerous Goods store along the lot boundary of the adjoining Charter Hall site.</li></ul> <p>Each of these grounds of objection are set out in more detail below.</p>	Noted as a summary of issues.
CONSTRUCTION				
	CONSTRUCTION TIMEFRAME	226	<p>The construction of SSD 7309 is described in the EIS prepared by SITE Planning + Design in May 2019 as being undertaken in a 4 Stage approach which is illustrated in Figure 3 General Arrangement Stages and comprises the following key stages:</p> <ul style="list-style-type: none"><li>▪ Stage 1 – Bulk earthworks, construction of hardstand areas for internal manoeuvring of reach stackers, forklifts and container stackers, stormwater management;</li><li>▪ Stage 2 – Built form construction including administration building site, fuel storage, wash bay, transport workshop site and container repair workshop site;</li><li>▪ Stage 3 – Light vehicle access road and associated parking; and</li><li>▪ Stage 4 – Construction of additional hardstand for empty container storage area.</li></ul> <p>These works would be staged to enable the early commencement of operations. Completion of the Stage 1 works would allow trains to be stripped, stacked and loaded to semi-trailers or B doubles to be transported to their respective destination in Western Sydney. Following the pre-site works (i.e. sediment and erosion control, construction management requirements, signage, etc.) the earthworks, hardstand area and heavy vehicle access would form part of the first stage as will the detention basin. Thereafter, the area to contain the buildings, fuel storage and wash bay would be delivered, which would include the proposed wash bay building. The light vehicle access and car park would be delivered shortly after. The first three stages would be delivered in around five months with the final stage including the additional hardstand area being delivered when the Freight Hub reaches capacity levels to require the additional stacking area.</p>	Noted.
		227	<p>A proposed Construction Program is provided as Appendix 7 to the EIS prepared by SITE Planning + Design in May 2019. This proposed Construction Program entails the following:</p> <ul style="list-style-type: none"><li>▪ Pre site works commencing in July 2019</li><li>▪ August – December 2019 – Construction of heavy vehicle access road, bulk earth works and hard stand areas. The Stage 1 works enable the St Marys Freight Hub to commence operation at a reduced capacity whilst other parts of the project are still under construction;</li><li>▪ September – February 2020 – Construction of administration building site, fuel storage, wash bay, transport workshop and container repair workshop sites. These works are estimated to take four months with completion in</li></ul>	Noted.





			<p>February 2020 and approvals for the office/administration buildings and workshop buildings will be progressed separately;</p> <ul style="list-style-type: none"><li>▪ August – September 2019 – Light Vehicle Access Road and associated parking;</li><li>▪ November – January 2020 – Finishing Works including landscaping, lighting, fencing, signage; and</li></ul> <p>The overall construction timeframe is expected to take approximately five months to be completed and the site would be operational based on approvals being in place by mid-February 2020. The staging would overlap as it is critical to delivery specific works early to enable the early operation of the Freight Hub.</p>		
	OBJECTION COMMENT	228	<p>Overall, Willowtree considers this construction timeframe as set out in the proposed Construction Program to be ambitious. It is likely that this Construction Program timeframe would in fact take longer to complete. It is therefore also likely that the construction period dust and traffic impacts assessed as part of SSD 7309 could, in fact, last for a longer period of time compared to what has been represented in the EIS prepared by SITE Planning + Design in May 2019 and its appending technical reports. It is furthermore noted that the Noise and Vibration Assessment took a more conservative approach and assessed a seven-month Construction Program, emphasising the likelihood that the Construction Program timeframe quoted in the EIS is indeed inadequate. This has impacts for surrounding landholders, including Charter Hall's landholdings which lie adjacent to the SSD 7309 site.</p>	<p>The construction program has been prepared by the contractor, McMahon Services, commissioned to deliver the Freight Hub facility.</p> <p>McMahon Services is recognised construction company with experience in large-scale construction projects across many sectors throughout Australia.</p> <p>It is agreed that the duration of construction works on surrounding properties and the local area should be minimised. Accordingly, the proposal includes a construction works program with extended hours works that will significantly reduce the duration of the construction period (by up to 4 months) and reduce exposure to surrounding landowners during construction.</p>	
	CONSTRUCTION PROGRAM INCONSISTENCIES	229	<p>The Construction Program set out in the EIS does not align with the construction Work Packages which were used to assess the construction phase of SSD 7309 within the Noise and Vibration Assessment. Moreover, the Draft Traffic Management Plan provides another variation of the proposed Construction Program breakdown. In particular, Willowtree notes that it is not clear whether light vehicle access to the site is proposed to be provided during Stage 1 or Stage 3 of the SSD 7309 Construction Program.</p> <p>The timeframe of these site access works and other related works, such as the delivery of heavy plant, equipment and materials to the SSD 7309 site could indeed impact on the Charter Hall landholdings. In particular, it is noted that the Draft Construction Traffic Management Plan states:</p> <p>The Forrester Road access is in close proximity to the St Marys Railway Station and a footpath runs across the access crossover. It is highly unlikely that many pedestrians would use this side of Forrester Road as there is a footpath on the eastern side of the road which provides a more direct connection to/from employment areas to the north. 'Footpath Closed' signage should be used in this location for the duration of construction with pedestrian diversions in place near the station stair-landing and to the north of Harris Street. The footpath on the western side of Forrester Street would need to be blocked by water-filled barriers or similar either side of the driveway where the alternative crossing points are provided in the TCP. No footpaths exist across the Lee Holm Road access and no specific measures are warranted.</p> <p>However, the tenants of the Charter Hall site would have to be made aware of these works so that any workers or visitors planning to access the Charter Hall site by foot via the North St Marys Railway Station are aware that pedestrian access could be disrupted during the construction of SSD 7309. Figure 4 below shows the location of the North St Marys Railway Station in relation to the Charter Hall site and Forrester Road. This information would equally apply to those accessing the Charter Hall site on bicycle. These inconsistencies with the Construction Program staging are therefore of concern to Charter Hall.</p>	<p>The construction program is consistent across all post exhibition assessments and documents.</p> <p>Construction site access is from Lee Holm Road.</p>	
	AIR QUALITY IMPACT ASSESSMENT	230	<p>A qualitative assessment was undertaken of the proposed construction of SSD 7309 to ascertain the resulting air quality impacts, as per the UK Institute of Air Quality Management (IAQM) document, Guidance on the assessment of dust from demolition and construction.</p> <p>The Air Quality Impact Assessment identified the following potential air quality impacts resulting from the construction and operation of SSD 7309:</p> <ul style="list-style-type: none"><li>▪ Dust emissions from earthworks and bulk material stockpiles;</li><li>▪ Dust emissions from construction materials at loading and unloading transfer points; and</li><li>▪ Combustion emissions from operational mobile equipment such as train locomotives, forklifts and trucks.</li><li>▪ The potential pollutants of interest during the construction and operation of SSD 7309 would include dust and fuel combustion products comprising:<ul style="list-style-type: none"><li>▪ Particulate matter equal to or less than 10 microns in diameter (PM10);</li><li>▪ Particulate matter equal to or less than 2.5 microns in diameter (PM2.5);</li><li>▪ Oxides of Nitrogen (NOx);</li><li>▪ Carbon Monoxide (CO); and</li><li>▪ Volatile Organic Compounds (VOC's) (Benzene, Toluene, Ethyl Benzene, Xylene and Naphthalene).</li></ul></li></ul> <p>A review of nearby meteorological data along with existing air quality data for the locality, as monitored by the Environment Protection Authority, indicates that PM10 concentrations are occasionally exceeded within the locality. However, these exceedances are generally the result of exceptional meteorological events such as bushfires, hazard reduction burns and dust storms. Road and rail traffic are identified as the only surrounding pollution sources. Overall,</p>	<p>Noted.</p>	





			there is no suggestion in the Air Quality Impact Assessment that the ongoing operation of the Charter Hall site is in any way negatively affecting the baseline air quality of the surrounding locality.		
		231	<p>As there are a number of sensitive receptors located within 350m of the boundary of SSD 7309, further assessment was therefore undertaken of potential construction dust impacts as per the IAQM method.</p> <p>Section 6.1.2.2 of the Air Quality Impact Assessment explains how the potential construction air quality impacts were calculated on the assumption that:</p> <ul style="list-style-type: none"><li>There are no High-Sensitivity Receptors (Residential) within 20m of the Project boundary;</li><li>There are &gt;100 High-Sensitivity Receptors (Residential) within 350m of the Project boundary; and</li><li>Annual average PM10 concentration in the area between 15µg/m3 and 19µg/m3 which is below the EPA criterion of 25 µg/m3.</li></ul>	Noted.	
	OBJECTION COMMENT	232	<p>However, Willowtree considers that the Air Quality Impact Assessment has not considered the potential of SSD 7309 to impact on Medium-Sensitivity Receptors, which are places of work where exposure is likely to be eight hours or more in a day. Indeed, Lot 2220 DP1172926 (owned by Charter Hall) is immediately adjacent to Lot 2 DP876781 which forms part of SSD 7309. While there are vegetation buffers separating current operations at the Charter Hall site with the proposed extent of works for SSD 7309, there could nevertheless be workers at the Charter Hall site located within 50m of the proposed extent of these works. It is therefore concluded that the Air Quality Impact Assessment may not have given adequate consideration to these Medium-Sensitivity Receptors.</p>	<p>The post exhibition AQIA considers sensitivity of the surrounding area including medium sensitivity receptors.</p> <p>Mitigation strategies are outlined in section 6.1.3 of the assessment, which is included in Appendix 14.</p>	
	DRAFT CONSTRUCTION MANAGEMENT PLAN	233	<p>The Draft Construction Traffic Management Plan does not identify the proposed heavy vehicle haulage routes which would be undertaken. However, it does identify Forrester Road as being an already-approved heavy vehicle route. As set out in Section Error! Reference source not found. above, the Charter Hall site uses Forrester Road for both its heavy and light vehicle access and egress. It is therefore possible that those workers and visitors accessing the Charter Hall site could experience greater traffic congestion along Forrester Road during the construction of SSD 7309. This is particularly the case given that the Draft Construction Traffic Management Plan states the following:</p> <p><i>“Exact plant and equipment usage and requirements are to be determined at a later date by the contractor.”</i></p> <p>Willowtree therefore considers it impossible to ascertain the exact construction period traffic impacts of SSD 7309. This is despite the Traffic and Transport Assessment set out in Appendix 4 of the EIS stating</p> <p><i>“The site will generate between 8-12 peak hour truck movements during the construction phase, mostly associated with the construction of on-site facilities and particularly the large concrete pad and driveway areas required. This volume of trucks is less than the expected truck traffic generation in the operational phase and like the operational period assessment findings, is not expected to introduce any significant impacts to the surrounding road system.”</i></p> <p>Overall, Willowtree considers that the Draft Construction Traffic Management Plan has not as of yet adequately responded to the SEARs issued for SSD 7309. This creates issues for surrounding landowners, such as Charter Hall, who need to understand the construction period impacts to their own operations.</p>	<p>Site construction access is from Lee Holm Road and the traffic generation and proposed works schedule seeks to minimise the duration of the construction period through extended work hours.</p>	
	NOISE AND VIBRATION ASSESSMENT	234	<p>In terms of potential construction vibration impacts, the Noise and Vibration Assessment identifies that vibration intensive works may include the use of vibrating rollers and similar equipment. The minimum working distances of these items of equipment from off-site receivers are based on recommendations of the TfNSW Construction Noise and Vibration Strategy (CNVS). It is considered that the existing built form on the Charter Hall site is located at a sufficient distance from the proposed SSD 7309 construction works so as to not endure cosmetic building damage. However, works could still take place within an adequate distance (i.e. within 100m) of the workers and visitors at the Charter Hall site so as to allow these persons to experience construction vibration impacts.</p>	<p>It will be a requirement of the D&amp;C Contractor to perform a dilapidation survey on adjacent properties and a hot line will be set up to manage any complaints or concerns raised during construction in order that the disturbance can be dealt forthwith should it arise.</p> <p>Notwithstanding the D&amp;C Contractor will assume “Principal Contractor” status clearly depicting obligations during the delivery of the works in accordance with the statutory requirements.</p>	
	FLOOD IMPACT ASSESSMENT	235	<p>The Desktop Flood Study and Flood Impact Assessment included as Appendix 14 to the EIS prepared by SITE Planning + Design, May 2019 confirms that the site of SSD 7309 is affected by the 1% AEP mainstream flooding event from Little Creek. It also states that:</p> <p><i>“The proposed development is not considered to expose any resident to unacceptable levels of risk or property to unreasonable damage and will not increase flood hazard or risk to other properties.”</i></p> <p>Moreover:</p> <p><i>“any increase in flood levels occurring as a result of the proposed development is within the criteria of the PCC DCP and contained within land owned by Pacific National.”</i></p> <p>In its existing state, the Desktop Flood Study and Flood Impact Assessment confirms that portions of the Charter Hall site are subject to the following flooding impacts from Little Creek:</p> <ul style="list-style-type: none"><li>The 5% AEP event;</li><li>The 1% AEP event;</li><li>The PMF event;</li><li>Flooding Velocity of &lt; 0.5 m/s for the PMF event; and</li></ul> <p>Low Flooding Hazard. .</p>	Noted.	



		236	<p>It is considered that with SSD 7309 in place, the Charter Hall site would remain subject to the following flooding impacts from Little Creek:</p> <ul style="list-style-type: none"><li>▪ The 5% AEP event;</li><li>▪ The 1% AEP event;</li><li>▪ The PMF event;</li><li>▪ Flooding Velocity of &lt; 0.5 m/s for the PMF event; and</li><li>▪ Low Flooding Hazard.</li></ul> <p>However, the modelled floodplain mapping for Little Creek contained in the Desktop Flood Study and Flood Impact Assessment indicates that the extent of each of these flooding impacts from Little Creek could be increased slightly at the Charter Hall site with SSD 7309 in place. Indeed, as shown on Figure 5 and Figure 6 above, SSD 7309 would slightly increase the PMF event impacts experienced in the western portion of the Charter Hall site.</p> <p>Willowtree therefore challenges the validity of the claim made in the Desktop Flood Study and Flood Impact Assessment that:</p> <p><i>“The proposed development is not considered to expose any resident to unacceptable levels of risk or property to unreasonable damage and will not increase flood hazard or risk to other properties.”</i></p>	<p>Refer to the updated Flood Impact Assessment for responses to the plan and DCP.</p> <p>The report show that the proposed development is compliant with the plan and DCP desired outcomes.</p>	
	DANGEROUS GOODS	237	<p>The Hazardous and Offensive Development Risk Screen included as Appendix 10 to the EIS prepared by (SITE Planning + Design, May 2019) advised that the nearest Dangerous Goods which are proposed to be stored in the vicinity of the Charter Hall site would be Class 3C1 Diesel, stored within 25m of the Lot 2220 boundary. Given that Diesel is only combustible and not flammable, it was concluded that no further hazard assessment was required in support of SSD 7309.</p> <p><u>However, it is noted that no assessment has been undertaken of the potential impacts to the Charter Hall site by storing the proposed 30,000L of Diesel so close to its property boundary. Moreover, Willowtree notes that it is common for Development Applications to seek approval for lower risk Classes of Dangerous Goods in the first instance, then increase the types and quantities of Dangerous Goods approved for storage at that same site as part of a subsequent Development Application. In the instance that further modifications are made to the approved Dangerous Goods storage at the site, potential future land uses on the Charter Hall site could be restrained on the basis of perceived Dangerous Goods risks.</u></p>	<p>A fuel storage area is identified on the Concept Layout Plan that achieves the minimum separation distance from boundary fences.</p>	
	CONCLUSION	238	<p>Based on the matters discussed above, it is recommended that SSD 7309 not proceed in its current form. Given the construction and operation al impacts which would occur for the Charter Hall landholding at 10 Forrester Road, St Marys (2220 DP1172926), it is considered that the assessment prepared so far for SSD 7309 is lacking in some respects.</p> <p>These concerns of Charter Hall primarily relate to consistencies with the quoted Construction Program and timeframe, the lack of consideration given to Medium-Sensitive Receptors to dust generated during the construction of SSD 7309, lack of transparency regarding potential construction-period traffic impacts, the lack of consideration to human discomfort impacts during the use of vibration-intensive equipment during construction works, the validity of conclusions made in the Flood Impact Assessment about SSD 7309 not increasing flooding impacts to surrounding properties, and the suitability of locating a Dangerous Goods store so close to the Charter Hall site.</p> <p>It is considered prudent for DP&amp;E to request the matters identified in this Objection be addressed so that a decision can be made in the public interest.</p> <p>To discuss further the matters highlighted in this Objection to SSD 7309, please contact Jessica Miller at Willowtree Planning (0402 845 415 or jmillier@willowtp.com.au) or Andrew Cowan at Willowtree Planning (0413 555 638 or acowan@willowtp.com.au).</p>	<p>The issues of the submission are acknowledged and have been clarified and/or addressed in the post exhibition RTS report and post exhibition technical assessments.</p> <p>Importantly, the need to reduce the duration of the construction period to minimise any potential residual impacts on surrounding landowners is supported which can be enabled through the approval for extended work hours.</p>	



## 5.2 NSW PORTS

CORPORATE AND INDIVIDUAL – NSW PORTS					
KEY ISSUE	DETAILED ISSUE	ITEM NUMBER	SUBMISSION COMMENT	PROPONENT RESPONSE	CHANGE
GENERAL					
	IMPORTANCE OF ST MARYS INTERMODAL	239	<p>NSW Ports has reviewed the documentation related to the SSD application and is supportive of the proposal.</p> <p>The St Marys Intermodal will form an important link in the freight supply chain for NSW. Intermodal terminals allow for the rapid movement of containers by rail between the Port and warehouse facilities. NSW Ports have set a target to move three million TEU per year by rail by 2045 - around 40 per cent of forecast container volumes. The development and operation of new intermodal terminals such as the St Marys Intermodal is essential to achieving this target. Further, the NSW Government Freight and Ports Plan 2018-2023 highlights the importance of new intermodal terminals to increase the utilisation of the rail freight network.</p>	Noted.	
		240	<p>The growth of containers on rail is a key objective in Navigating the Future, NSW Ports' 30 Year Master Plan, to sustainably cater for the forecast trade growth. Maximising the transport of containers by rail between Port Botany and intermodal terminals is essential for efficient and sustainable container distribution throughout Sydney. Growth in the use of rail to transport containers will benefit the road network around Port Botany and greater Sydney by reducing the number of trucks tasked with the movement of freight. The St Marys Intermodal proposes to remove 10 million truck kilometres per year from the regional and state road networks, including primary freight routes servicing Port Botany. Intermodal terminals are an essential component of the port logistics supply chain and additional new intermodal terminals are essential for efficiently moving the growing SW freight task by rail.</p>	Noted.	
		241	<p>NSW Ports is at the forefront of freight rail connectivity and announced in November 2018 an investment to boost rail capacity at Port Botany. Improving 'on-dock' rail infrastructure at Port Botany at each of the three container terminals through a staged investment will improve the rail connectivity of Port Botany to metropolitan Sydney and regional NSW. Additional intermodal terminals located in Western Sydney are required to meet the rail freight demand and the St Marys Intermodal forms an important piece of infrastructure which will allow rail to play a more significant role in freight transport. The St Marys Intermodal development aligns with other important rail investment including Port Botany freight rail line duplication (Commonwealth funding announced), Moorebank Intermodal Terminal, Enfield Intermodal Logistics Centre and other projects identified in the <i>NSW Freight and Ports Plan 2018-2023</i> (NSW Government).</p>	Noted.	
		242	<p>Almost 90 per cent of import containers through Port Botany are delivered within a 50-kilometre radius of Port Botany. The location of the St Marys Intermodal, along with future intermodal terminals in Western Sydney will contribute to the efficient movement of containers by rail, where they can be destined for the market or goods associated with the containers can be unpacked/repackaged at warehouses for distribution. However, if government policy and infrastructure aren't concurrently evolving to support freight rail, then freight rail disruptions and long-term impacts will significantly affect the supply chain. This includes the timely approval, construction and operation of the Botany Rail Duplication project which will be an operational requirement to successfully operate the St Marys Intermodal without the risk of complications arising due to the construction of the Botany Rail Duplication project.</p>	Noted.	
	OTHER STRATEGIC PROJECTS	243	<p>Further, in order to maximise efficient freight rail movements, further rail investments need to be made in Western Sydney. The Western Sydney Freight Line project is critical to the future of the growing freight needs of Western Sydney. The NSW Government <i>Future Transport Strategy 2056</i> identifies the future strategic road network in Greater Sydney as increasing reliance on dedicated freight rail corridors for movements between ports and intermodal terminals in the Central and Western Sydney.</p>	Noted.	
		244	<p>Protecting corridors is a first step toward meeting future growth in Western Sydney. NSW Ports advocates for the protection of these vital freight corridors through their identification and zoning in environmental planning instruments. Ideally, these corridors would be identified and protected through a dedicated instrument and would receive protection from encroachment including through the application of Clauses 87 and 102 of <i>State Environmental Planning Policy (Infrastructure) 2007</i>. Protecting the Western Sydney Freight Line corridor, along with the Outer Sydney Orbital (motorway and rail line) will provide the freight and logistics industry with confidence the freight rail task is advanced and measures to expand the freight rail network are actively being explored, including critical long term infrastructure corridors in Western Sydney. However, further work needs to be undertaken to identify a final Western Sydney Freight Line route between Leightonfield and Eastern Creek. Additionally, in order to maximise freight rail opportunities, the Western Sydney Freight Line needs to be designed to connect to the Outer Sydney Orbital corridor to provide both north-south and east-west connections.</p>	Noted.	
		245	<p>The <i>Greater Sydney Commission - Western City District Plan</i> identifies both the Western Sydney Freight Line and the Outer Sydney Orbital as infrastructure required to create a more connected Western Sydney. The <i>Western City District Plan</i> states:</p> <p><i>"By 2036, the Western Sydney Employment Area will be a key destination for cargo, with metropolitan intermodal terminals being critical for managing the rapidly growing import container trade and enabling more freight to be moved by rail. Duplication of the Port Botany rail line and a dedicated freight line and intermodal terminal for Western Sydney that connect to the Outer Sydney Orbital will support economic growth - driving employment and increasing the amount of freight carried on rail that will reduce heavy vehicle trips on the Sydney Road Network."</i></p> <p>The Greater Sydney Commission calls to action Councils, other planning authorities and State agencies to investigate, plan and protect future transport and infrastructure corridors. Proactively planning for the future of the NSW freight task is essential for growing the capacity of intermodal terminals in Western Sydney. Investment in dedicated freight corridors will allow a more efficient freight and logistics network</p>	Noted.	
		246	<p>NSW Ports supports proposals of this nature which seek to facilitate a mode shift of the transportation of containers from road to rail.</p>	Support for the proposal is noted.	



5.3 MR E STRATOTIS

CORPORATE AND INDIVIDUAL – EMMANUEL STRATIOTIS					
KEY ISSUE	DETAILED ISSUE	ITEM NUMBER	SUBMISSION COMMENT	PROPONENT RESPONSE	CHANGE
TRAFFIC – HEAVY VEHICLES					
	USE OF LEE HOLM DRIVE FOR HEAVY VEHICLES EXITING SITE	247	<p>I support the project but believe that the heavy vehicles should not be exiting back in to Lee holm Rd.</p> <p>Lee Holm Rd supports the use of the entry of vehicles , however it would be dangerous to have heavy vehicles exiting back onto Lee Holm Rd as it is not wide enough as a carriageway to support such traffic and would be dangerous to have heavy vehicles turning right back on to Lee holm Rd when exiting the site.</p> <p>The alternative would be to have Lee Holm Rd as an entry point only and the exit should be back on to Forrester Rd via the road adjacent to the rail line. That way there is continuity of traffic and Forrester Rd is wide enough to be facilitate heavy vehicle movements.</p> <p>This would in turn allow heavy vehicles to turn right into Glossop St using traffic lights already in situ and provide access to Boronia Rd and Christie St using the existing roundabout thus making heavy vehicle movements safer and not endangering light vehicle traffic.</p>	<p>Heavy vehicle access has been removed from Lee Holm Road and is now from Forrester Road.</p> <p>It is agreed this is a significantly better access arrangement for the Freight Hub.</p>	



5.4 MR C DIAKOS

CORPORATE AND INDIVIDUAL – CON DIAKOS					
KEY ISSUE	DETAILED ISSUE	ITEM NUMBER	SUBMISSION COMMENT	PROPONENT RESPONSE	CHANGE
TRAFFIC – HEAVY VEHICLES					
	ACCESS ROADS – TRAFFIC VOLUME	248	<p>Whilst I support this project in principal and location, I am very concerned with the access roads surrounding the St Marys site, in particular at Lee Holm Rd.</p> <p>I understand that the new facility is proposed to cater 300,000 containers pa, which relates to 34 containers per hour, or approx. a container every 1.75 minutes.</p> <p>This is an enormous volume to transport onto existing roads.</p>	<p>Support for the proposal is noted and heavy vehicle access has been removed from Lee Holm Road and is now from Forrester Road.</p> <p>It is agreed this is a significantly better access arrangement for the Freight Hub.</p>	
		249	<p>I note the new traffic signals at the end of Lee Holm Rd &amp; Christie St which will improve that intersection. However, no upgrades of Lee Holm Rd itself or at other intersections with Lee Holm Rd seem evident.</p> <p>Currently Lee Holm Rd is very congested and only wide enough for 3 vehicles. More significantly, Hi-Quality Group’s Land Fill / Recycling facility, just barely 200m from the proposed entry / exit point, will be a major traffic management problem. Dump trucks bank up along Lee Holm Rd from both directions waiting to enter the Hi-Quality site.</p> <p>Also, they have very poor dirt removal processes on site, so trucks exiting the site carry a large amount of dirt onto the road. So, they have engaged road cleaners and street sweepers to continually wash down the road all day long. This creates a highly localised precarious section that every truck entering and exiting the proposed Freight Hub facility must pass through.</p>	<p>Heavy vehicle access has been removed from Lee Holm Road.</p>	
		250	<p>Should the truck drivers wish to avoid this section, they must drive in the opposite direction along Lee Holm Rd towards Wordoo St / Forrester Rd intersection. This intersection is not currently proposed for an upgrade. It is already heavily congested, especially during afternoon peak times when factory workers finish work. Traffic banks up at Wordoo St and along Forrester Rd down to the Glossop St intersection.</p> <p>So, with a container every 1.75 minutes, this will become an extremely volatile area. Please consider tired workers leaving their jobs after a long day only to be hit with traffic as soon as they leave their work.</p> <p>Please review the overhead power lines along Lee Holm Rd near the entry / exit location, which seem too low and require a major upgrade. They are located right along the edge of the kerb increasing risk of an accident with high volume truck movements.</p>	<p>Heavy vehicle access has been removed from Lee Holm Road.</p>	
	TRAFFIC AND TRANSPORT ASSESSMENT – SWEEP PATHS	251	<p>Upon reviewing the Traffic &amp; Transport Assessment Figure 7.4 showing the required swept path at the proposed entry / exit location it appears that every single truck that enters and leaves the facility must go onto the other side of the road. Given the high volume of road transport through the proposed facility, this would result in excessive interference and stoppage of other vehicles using Lee Holm Rd. It would create traffic build up. Also, given that this is near a blind bend (only 100m away) there would inevitably be a rear end accident as vehicles come around the bend to be met with a traffic jam, waiting for the truck to enter / leave the proposed facility every 1.75 minutes!</p>	<p>Heavy vehicle access has been removed from Lee Holm Road.</p>	
	PROXIMITY TO ELECTRICITY TRANSMISSION TOWER	252	<p>I also find it dangerous that the proposed “Heavy Vehicle Access Rd” leading from Lee Holm Rd to the facility just misses a very big steel electricity transmission tower.</p>	<p>Heavy vehicle access has been removed from Lee Holm Road.</p>	
	LEE HOLM DRIVE	253	<p>It seems evident to me that the location of the entry / exit is not ideal and that there must be better alternative. By “better” I mean one that does not impact the local workers and businesses so heavily. Does not heighten safety risks along Lee Holm Rd at numerous locations. Does not require every single truck to go onto the other side of the road and impact all other users of Lee Holm Rd. Does not have adverse flow on effects to other ends of Lee Holm Rd as an avoidance consequence of the area.</p> <p>To mitigate all the above-mentioned issues, I propose that entry / exit for the facility be relocated to run along the Existing Siding and come out at Christie St, with new traffic lights installed. At this point it is far away from existing businesses and facilities, there is sufficient space to widen the driveway and allow low impacting truck swept paths. The proposed duplication of Christie St may even be brought forward (at Werrington Rd intersection).</p>	<p>Heavy vehicle access has been removed from Lee Holm Road and is now from Forrester Road.</p>	
		254	<p>In summary, I support the proposed St Marys Freight Hub to cater for the growing Sydney metropolis, with the whole basis of this facility being to relieve “the regional and state road network of heavy vehicle and container traffic” as stated on page v of the EIS. Whilst relieving other areas throughout Sydney of this traffic, the offset it seems is that Lee Holm Rd will be burdened with the increased heavy vehicle and container traffic. There are way too many local adverse effects with the current proposed entry / exit at Lee Holm Rd. A safer, more efficient, less impacting alternative must be sought. Hopefully, with further analysis, my proposal may prove suitable.</p>	<p>Support for the proposal is noted and heavy vehicle access has been removed from Lee Holm Road.</p> <p>Forrester Road and associated transport routes has been determined the be the optimum transport arrangement that minimises impacts on the local road networks and utilises designated heavy vehicle transport routes.</p>	