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Dear Ms Sarkies

STATE SIGNIFICANT INFRASTRUCTURE – HEXHAM RELIEF ROADS PROJECT (SSI-4992)

I refer to the Department's letter of 7 August, 2012, inviting Council to comment on the Environmental Impact Statement (EIS) prepared by KMH Environmental in support of the abovementioned Project.

Council officers have examined the EIS and it is requested that the proponent be requested to submit supplementary information, which satisfactorily addresses the following comments:

1. Newcastle Local Environmental Plan, (NLEP) 2012

(a) Zoning

It is acknowledged that in accordance with *State Environment Planning Policy (State and Regional Development), 2011*, the application for the proposed Project will be assessed under Part 5.1 of the *Environmental Planning Assessment Act, 1979*. Therefore, no legislation or other planning instruments have any effect on the permissibility of the proposed Project.

However, the Director-General's requirements required the EIS to consider the relevant Local Environment Plan. Under the Newcastle LEP (NLEP), 2012 the Project is within land zoned SP2 Infrastructure, E2 Environmental Conservation, E1 National Parks and Nature Reserves and IN3 Heavy Industrial. The EIS has not discussed the permissibility of the Project in respect of the above zones or compliance with relevant objectives of the Plan. Also, the EIS does not include a plan/figure that identifies the extent of the Project site relative to the boundaries of the four zones.

(b) Acid sulfate soils

Land within the Project site is mapped as being within Class 2 of the Potential Acid Sulfate Map of NLEP, 2012. For Class 2 land, clause 6.1 of the NLEP, 2012 requires the preparation of an acid sulfate soils management plan for works below ground surface and works by which the water table is likely to be lowered.

The EIS states that an acid sulfate soils management plan will be developed. This should be a condition on any consent issued. The management plan should be provided and approved prior to any works on site that result in soil disturbance.

2. Flood

The recently adopted Newcastle City-Wide Floodplain Risk Management Study and Plan prepared by BMT WBM Pty Ltd, June, 2012 maps the identified floodway, flood storage and flood fringe areas for the Lower Hunter River floodplain. The maps were prepared for the Probable Maximum Flood and 1% Annual Exceedance Probability flood events and follow the principles identified in the State Government's Floodplain Development Manual. The mapping process endeavoured to assess cumulative development impacts over the whole floodplain area rather than local impacts associated with individual developments or a local grouping of proposed developments as used in this submission. The proposed Project needs to be assessed in the context of the floodplain classification mapping prepared by Council for the Hexham area including this site prior to determination of the application.

The subject site is identified as a high flood hazard area. As such for large Hunter River flood events, there is a significant risk to life and property in this part of the floodplain. The proponent needs to address these risks for the proposed development prior to the determination of the application

The EIS states that *'should the project proceed then it is anticipated that the DHI model for Newcastle Council will need to be upgraded to include the Project Area'*. Council have no current plans or funds to upgrade the DHI Lower Hunter River flood model to reflect impacts of new developments. New developments need to have acceptable levels of predicted impact from an individual site perspective and a cumulative development position.

The submitted EIS has not satisfactorily demonstrated that the proposed Project will not adversely impact on the flood plain of the Hunter River and properties downstream.

The location of the subject site traverses floodways identified under Council's current flood classifications. Details of the floodways can be found on Map 4-L & Map 5-L, in the links below:

[http://www.newcastle.nsw.gov.au/data/assets/pdf_file/0008/204686/Series_4 -
Compendium of Flood Maps.pdf](http://www.newcastle.nsw.gov.au/data/assets/pdf_file/0008/204686/Series_4_-_Compendium_of_Flood_Maps.pdf)

[http://www.newcastle.nsw.gov.au/data/assets/pdf_file/0009/204687/Series_5 -
Compendium of Flood Maps.pdf](http://www.newcastle.nsw.gov.au/data/assets/pdf_file/0009/204687/Series_5_-_Compendium_of_Flood_Maps.pdf)

Generally, Council does not support development in a floodway. Floodways are areas which, even if only partially blocked, can cause a significant redistribution of flood flow or increase in flood levels, which may in turn adversely affect other areas. Therefore, it is imperative that the proposed Project does not adversely affect these floodways and the existing conditions are replicated with no additional impacts. Specifically, those floodways within chainages (ch) 2000 to ch 3500 and ch 0 to 500 as identified in the Flood Impact Assessment prepared by BMT WBM Pty Ltd.

The design of the Project should ensure that there will be no increases to flood impacts in these floodways and at a minimum, the finished levels of the proposed tracks (roads) are not higher than the existing tracks and the levels of any new roads are not higher than the existing ground levels. The Project is to also include a sufficient number of points for the conveyance of essential flood flow to occur which have the same or greater capacity to the existing facilities so that the flows into and out of the Hexham Wetlands are the same post development to pre-development for all storm and flood events up to a Probable Maximum Flood event.

The submitted application was not supported by detailed design plans and the single incomplete 'typical cross-section drawing' provided in the EIS shows a design which is in fact contrary to the above flood management objectives. It is considered that the EIS has

not adequately demonstrated that the proposed Project will not have a significant impact on flooding in the area and lacks details to make an informed decision in this regard. The design details of the development need to be provided and incorporated into the flood modelling of the Project.

In addition, the flood assessment has not adequately considered the cumulative impacts from all future development sites within the flood plain, but has only looked at some key projects in the locality. In terms of cumulative impacts the EIS should address the likely impact from the proposed Project if all other land in the flood plain that could be developed are developed, including the filling of all flood fringe land and other identified projects such as a large proposed industrial development in Tomago. This assessment should be included in the flood modelling with the results advised.

3.0 Stormwater Management

The application is not supported by a detailed stormwater design plan. The stormwater design should be designed in accordance with the relevant requirements of section 7.06 of the Newcastle Development Control Plan.2012; in particular the water quality targets and the reductions in the pollutants. Based on the available information, the proposed development appears to be increasing pollution loads; it is recommended that measures be in place to reduce the pollutant loads.

Without storm water design plans it is difficult to ascertain how the stormwater systems of the Project will function; however, with the lines consisting of ballast they are partly permeable and would work similar to permeable paving in small storm events and are likely to increase runoff in those events. Discharge rates should be required to be at a maximum of predevelopment levels for all storm events up to the 1% event

It is recommended that a concept stormwater design be prepared and further flood modelling be undertaken based on those plans.

4.0 Ecology

The proposed Project entails the potential disturbance of three Endangered Ecological Communities consisting of the following:

Endangered Ecological Community	Remnant Area	Potential Loss
Swamp Oak Swamp Forest	6.18 ha	5.28ha
Swamp Mahogany Swamp Forest	1.12 ha	1.12ha
Coastal Freshwater Wetlands	3.46 ha	2.70ha

The EIS does not identify what proportion of these EEC are in the Newcastle Local Government Area (LGA) and what the potential loss represents in these terms though there is a table which indicates regional proportions. While Council does not have a comprehensive mapping of Endangered Ecological Communities in the LGA, considering the REMS vegetation mapping of 2003 for example suggests the remnant Swamp Oak Floodplain Forest and Swamp Mahogany Swamp Forest said to be potentially disturbed by the proposed Project are both one of the largest remaining stands and a significant proportion of the total remaining area of these vegetation type in the LGA. An assessment of the % loss of the vegetation types within the LGA should be provided and used to help guide offset ratios and locality for offsets.

Part of a SEPP 14 wetland (Wetland 833) will also be impacted by fill works. It is not clear if the vegetation assessed included parts of the SEPP 14 wetland.

The proposed Project traverses the Stockton to Watagan Green Corridor. The submitted Ecological Assessment indicates because of the small widening of an existing highly disturbed rail corridor the proposal is not likely to have a significant effect (p.32). Despite the vegetation in the Project area being highly fragmented and relatively minor in area

these few remaining remnants may be of disproportionate importance on a landscape scale and in the context of the intent of the Green Corridor. An assessment of the importance of these remnants in regards to fauna movement within the regional green corridor should be provided especially in regards to the localised movement of avian and bat species.

In the section regarding field based studies of Flora and Fauna, there was no reference to the regional flora and fauna survey guidelines (Bell et. al, 2004) therefore the adequacy of survey effort may be questioned.

The section on aquatic ecology is relatively poor with inadequate field surveys. In terms of fish, as a minimum seine netting or backpack electrofishing should have been considered. Nonetheless, further surveys in this regard are probably unwarranted but reference to other aquatic studies especially the estuary management studies undertaken in the early 2000's and studies regarding Hexham Floodgates should be considered.

The proximity of the environmentally sensitive Hexham Swamp has only been sporadically mentioned. The potential downstream impacts during a major flood event have not been discussed. The potential impact of the development during construction and operation, if a major flood event occurs, on downstream wetland values, including RAMSAR, needs to be included.

The offset strategy will be dependant on the BioBanking methodology. This section of the Assessment does not mention an offset for the *State Environmental Planning Policy (SEPP) 14* listed wetland (Wetland 833) that will be impacted by fill works associated with Project. The EIS must consider offset requirements for the loss of this SEPP 14 wetland. This aligns with Principal 10 of the NSW Wetlands Management Policy.

In the section 'Impacts of the proposed project' it is noted that there is no reference to the potential impact of extra lighting that increased movement of trains may create. This is particularly pertinent in terms of disorientation and behavioural impacts. An assessment of light impacts should also be considered.

The EIS indicates that the Project will have impacts on Green and Golden Bell Frog (GGBF) and will rely on 'pre-clearance surveys' of GGBF to attempt to mitigate these impacts. It is queried how effective this methodology will really be if the works schedule of the Project requires that such surveys are not undertaken during the appropriate months of the year.

According to the Australian reptiles and amphibians key guide, the Green and Golden Bell Frog breed in summer months and at this time stray long distances from their 'home range'. Therefore, undertaking a pre-clearance survey in the summer months may not be depictive of the actual populations in the area. Males call mainly during the months from August to January. If the survey is undertaken using frog calls, this would be the best period to survey.

Under the survey, guidelines defined by the Australian Government Department of Sustainability, Environment, Water, Population and Communities it states:

'Methods that have been successfully used in the past to survey the Green and Golden Bell Frog are visual encounter surveys, call surveys and night drives (UC 2003). Call surveys should be conducted during the known calling period, September–January (Anstis 2002; Brook 1980; Dankers 1977; Hero et al. 1991; Littlejohn 1969). Night driving surveys should focus on forest roads, in the non-breeding seasons, and grassy areas where foraging may occur (Pyke & White 1996).'

5.0 Noise

I refer to the Noise and Vibration Assessment prepared by Parsons Brinckerhoff. The Rating Background Levels (RBL) for 'location A' shows an increase from day to evening to night. This is suggested to be the result of increased local road noise in the evening and the influence by fauna at night. The data logging results are included as graphs in the Assessment. Visually, these graphs do not seem to support the actual figures reported, but suggest that the night-time RBL should be less than the day-time RBL. It is recommended that these results be reviewed to confirm that the calculated RBL's reported are corrected. If they are not correct, then the results, recommendations and conclusions of the report for that location would need to be reconsidered and updated as required.

It is also noted that the noise impacts from the construction phase are particularly high on some commercial receivers (R18 and R19). Further consideration may be required in relation to the feasible and reasonable control measures to reduce these impacts during construction.

6.0 Traffic and Transport

- (a) The application is based on the premise that the proposed Tarro interchange access road is only temporary and will be removed following completion of the rail construction works. Recent discussions between Council officers and representatives of the proponent in relation to cycle provision associated with Routes 8 & 9 under the Newcastle Bicycle Plan 2009, has identified a requirement for any permanent access road to incorporate a culvert structure to permit passage by cyclists. Further consideration should be given to the scenario that the temporary road is retained as a permanent access road and the requirement for cycle passage.
- (b) Details should be provided of the location and layout of the proposed construction compound. The layout being inclusive of details of the parking area for construction vehicles.
- (c) The nominated haulage routes include the use of the existing U-turn facility located 400m north-west of the John Renshaw Drive turn-off. This U-turn facility would appear to not adequately cater for heavy vehicles.
- (d) The temporary Tarro interchange access road is proposed to be an informal gravel road. It is recommended that this road be a sealed all-weather road to minimise dust and prevent erosion.
- (e) A typical cross-section profile should be provided in relation to the temporary Tarro interchange access road, inclusive of the estimated height/width of embankments and location of vehicle safety barriers. While the road is temporary it will be required to be designed to current road safety design standards.
- (f) The Traffic Impact Assessment estimates a maximum daily construction traffic generation for this Project at 380 trips per day (140 light and 240 heavy vehicles). It is unclear as to whether this traffic generation includes the traffic associated with the construction of the Tarro Interchange temporary access road and therefore accurately reflects the potential impacts of this Project.
- (g) It is estimated that the construction of the access road will take approximately 3 months. During this period, all construction vehicles will access the area for the construction of this road via the New England Highway / Woodlands Close intersection. Previous meetings between officers of Council, Roads and Maritime Services (RMS) and representatives of the proponent identified significant safety issues with any use of this intersection and accordingly were not supported. The Traffic Impact Assessment is silent on this issue and furthermore failed to assess this intersection in terms of road

safety. It is understood the RMS may permit limited access for special construction vehicles but certainly not haulage trucks. There would appear to be a level of confusion existing in relation to this issue that would need to be resolved with RMS prior to determination of this application. It is also to be noted that the Traffic Impact Assessment fails to address the removal of the temporary Tarro interchange access road and the resulting traffic activity and extension to time periods.

- (h) Section 6.42 – 'Road Safety Impacts' of the Traffic Impact Assessment states that head-on collisions may occur on Anderson Drive due to the new intersection not having sufficient space to accommodate large vehicles. This is considered unacceptable and either the intersection needs to be modified to accommodate these vehicles or if the use of these vehicles is infrequent then appropriate traffic control outside of peak periods could be utilised, subject to RMS approval. The proponent needs to define the vehicle type being referenced as a 'large vehicle'.

7.0 Contamination

The detailed site investigation report prepared Coffey Environments Australia Pty Ltd has confirmed that some remediation is required to make the subject site suitable for the proposed Project. A remedial action plan (RAP) dated 5 July, 2012 has also been prepared by Coffey Environments Australia Pty Ltd.

It is noted that although some removal of contamination is to be carried out as part of the RAP, some contamination is proposed to be managed on site. In this regard, a construction environmental management plan will be prepared to address the contamination issues associated with the construction phase; however, the ongoing management of contamination into the future should also be addressed in a long-term environmental management plan for the site. In this regard, Council recommends the involvement of a NSW Environment Protection Authority accredited site auditor, particularly in relation to the long-term management of contaminants on site which exceed the guideline for the proposed land use.

In this regard, a copy of all validation reports, long-term management plans, site audit statements and reports should be forwarded to Council for our records.

8.0 Indigence Heritage

According to the submitted EIS, an indigenous archaeological survey was conducted on site in August and November 2011. Accompanying this was a full indigenous heritage assessment occurred, research of registers and consultation with the Aboriginal community. As a result of these assessment processes recommendations have been made for the management of indigenous heritage, the timeframe of which should be as a next step in the preliminary preparatory stages prior to any physical works commencing on site.

In summary, the management strategy requires:

1. Preparation of An Aboriginal Heritage Management Plan (AHMP).
2. Program of Archaeological monitoring and testing concerning Site HS1 and Cultural PAD.
3. A protection zone around the rise of land near to Woodlands Close. For this to be practical it would have to be surveyed in association with the Aboriginal archaeologists and identified in the detail design documentation.
4. All registered Aboriginal stakeholders to be provided access to the site to recover any Aboriginal cultural material.
5. A keeping place for Aboriginal materials to be nominated and determined in association with Aboriginal stakeholders and included in the Aboriginal Heritage Management Plan.

The AHMP should be prepared in accordance with the requirements of the Aboriginal Consultation Guidelines of the Department of Climate Change, Water and Conservation and copies provided to the City of Newcastle on endorsement by the Aboriginal stakeholders.

9.0 Non-Indigenous Heritage

The key issue is potential for impacts to the 19th century artefacts and archaeological relics associated with the Minmi to Hexham railway, specifically the control cabins and signal boxes, junction cottages and crossing keepers' cottage.

In the absence of NSW Office of Environment and Heritage (OEH) permit requirements under Sec140 of the *NSW Heritage Act, 1977* an Archaeological Management Strategy (AMS) has been proposed. This AMS seeks to ensure there is a best practice approach to the retrieval and recovery of archaeological information in the event that the development impacts on the Minmi to Hexham railway. While this approach is supported it is recommended that the AMS include an archaeological research design that would be developed in consultation with the OEH Heritage Branch. The research design would ensure the most meaningful information is obtained through any archaeological salvage or monitoring program.

The AMS should be implemented and all archival material collected and the site documented prior to the physical commencement of works on site. Further, copies of the AMS including archival recording, should be provided to the City of Newcastle at the end of the archaeological program.

10.0 Visual Impact Assessment

The assessment methodology considered in chapter 2 of the Visual Impact Assessment (VIA) prepared by Envisage Consulting Pty Ltd is considered suitable for the development proposal. It is acknowledged that the assessment was undertaken considering a 'worst case scenario' in that there will be trains on all five relief roads proposed. The assessment also considers the cumulative impact of the QR National Train Support Facility.

The VIA concludes in section 3.2 that the area has 'a low scenic amenity'. This was due to the low vegetation and contrasting mix of land uses; specifically with regard to the industrial activity to the east of the Project site. However, while the assessment recognises the number of viewing points from the New England Highway (including Maitland Road), little regard has been made to the fact that the highway intersects the industrial area from the low lying, grazing land to the west providing distinct view changes of either side of the highway. Consequently, in providing a generalised land use statement to this area, reduced weight has been applied to the views offered to the west from the highway. Specifically, the views of Mount Sugar loaf in the distance are identified in the assessment as an important landmark of the Hunter Valley and the low lying, open grazing lands with the lack of vegetation provides ample viewing corridors to this feature making the categorisation as low scenic quality unwarranted. Furthermore, the introduction of a large number of static rail carriages in the foreground has the potential to obstruct this view, or at least distract the viewer from this background feature. Little weight has been given to this impact. The proposal would no doubt remove all views of this low lying mid range view of the wetlands. On this basis, the recommendations of the VIA to screen the rail corridor with vegetation is likely to further block the views and is questioned.

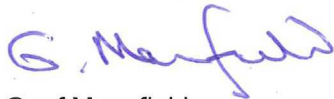
In respect of the nearby Hunter Wetlands National Park, the VIA states that the low number of users reduces the visual sensitivity from that viewpoint. Such comment ignores the fact that in the future the number of visitors to the Park may increase and conversely any detrimental impact of the Project on that viewpoint may in turn reduce the number of visitors to the National Park.

11.0 Design detail

As indicated in previous sections of this submission, concern is expressed at the lack of design details submitted in support of the application. It being noted that the single 'typical cross section' provided does not identify the existing 'Up Coal' and does not include the existing 'Up Main' and 'Down Main'.

I trust these comments are of assistance to you in your consideration of this application. Council looks forward to receiving the proponent's response to the various issues canvassed in this letter. In the meantime, if you have any questions, I can be contacted on 02 49742767.

Yours Faithfully



Geof Mansfield

COORDINATOR DEVELOPMENT ASSESSMENT TEAM