GRCCC
Georges River Combined Councils' Committee Inc.

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NSW Department of Planning and Environment
Attention: Director, Infrastructure Projects
Planning Systems
GPO Box 39
SYDNEY NSW 2001

24 November 2014

Dear Sir,

Re: State Significant development 5066 & EPBC 2011/6086

Moorebank Intermodal Terminal

The Georges River Combined Councils' Committee Inc. (GRCCC) is a body established by nine member Councils that collectively represents over 1 million people in the Sydney region. The GRCCC collaborates on a wide range of initiatives and coordinates natural resource management across the Georges River catchment. The GRCCC aims to protect, enhance and conserve the Georges River by working in partnership with state and federal government agencies that all have a collective responsibility for the long term health and amenity of the river.

The GRCCC and in particular Liverpool City Council are opposed to the development of the Moorebank Intermodal Terminal due to concerns over the adverse impacts on the Georges River as outlined below:-

1. **Impacts on Water Quality of the Georges River**

The MIT is likely to have significant adverse impacts on the water quality of the Georges River at each stage of its development and operation including site preparation, construction and operation. The clearing of large tracts of existing riparian vegetation and the loss of the riparian corridor to facilitate construction, rail access will expose and mobilise topsoil and have immediate impacts on the water quality of the adjacent Georges River. Construction activities and the rail access bridge piers will increase turbidity and sediment loads flowing into the Georges River, and without an established vegetation buffer to trap and treat sediment, water quality and aquatic habitat will be adversely impacted.

Upon completion of the development, the will be a significant increase in the area of impervious surfaces across the developed 220ha site. This changes the flow dynamics of water entering the Georges River dramatically by increasing the rate of stormwater flows and increasing the potential erosion both on and off site including downstream on the Georges River. The quality of the stormwater runoff is also of concern. The EIS states that (Section 3.3.3 Technical Paper 6) "the results for each layout shows that the rates of runoff from the developed site far exceed those for the existing site due to the considerable increase in impervious area, with a 300% increase in peak flows for the sub-catchments".

Specific concerns are outlined below:

a. The EIS (Section 3.1.3 Technical Paper 6- Surface Water Assessment) states the proposed site drainage strategy has been developed to contain stormwater runoff for all events up to and including the 10% AEP design event in an underground piped network. Runoff from higher order events will surcharge the network and travel overland via the road network, dedicated open channels or via graded channels across the site. The proposed system should be designed to minimise disturbance to site operations as a result of a rainfall event or from a flood event within the Georges River."

   The concern is that as the development has been designed to cater only up to the 10% AEP event. Runoff will surcharge the stormwater network above this event and impact on water quality. The majority of the site is affected by a significant flood risk (54%) with 25% having a medium to high risk of flooding from the Georges River (**Table 2.1**), with relatively long duration of floods of 36 hours in the medium and high flood risk zones within the site. Given this, runoff entering the Georges River is likely to degrade water quality. The site activities and high volume of trucks on the site and associated pollutants such as fuels and oils have the potential to contaminate and pollute the river further degrading water quality and impacting aquatic ecological communities and fish habitat of the Georges River.

b. The coarse scale MUSIC modeling of stormwater pollutants (Table 3.8 in section 3.4.3) shows an increase in annual load of Total Nitrogen into the River even post stormwater treatment measures. This is of significant concern in relation to water quality and is likely to contribute to algal blooms and negatively impact on aquatic fauna.

c. It is noted that an "on-site detention system is proposed that would detain flow and control discharge rates to Georges River at pre-development rates" as per Section 4.3.2. Despite the controls of flow rates to pre-development levels, the increased pollution loads as a result of site activities will impact on water quality.

d. The EIS states "The development provides for overland flow paths across the site to detention basins which will discharge to Georges River and also constructed biofiltration/wetlands along the east bank of Georges River to treat site runoff prior to discharge to Georges River" (section 3.1.3 Technical Paper 6- Surface Water Assessment). The EIS also states "The final stormwater treatment system should contain these or other approved equivalent measures in order to address LCC requirements for managing the quality of stormwater runoff from the site". There is no assurance that the control and treatment measures that "should" be provided will actually be provided in order to protect the water quality of the Georges River.

e. The EIS states (section 3.2.3) "the southern rail access option traverses the western floodplain through the Glenfield Landfill. It is expected that an embankment and or bridges/embankment formation for this crossing will have an impact on flood levels in the landfill. The flood risking mapping indicates that the landfill site is high flood risk hazard." Flooding of a landfill site may be exacerbated by the development of the southern rail bridge access option. The potential for any leachate to spill into and impact on the Georges River has not been adequately considered in the EIS.

f. Section 3.3.1 in relation to early works states that "If required, temporary basins for on-site detention would be constructed to manage runoff in line with erosion and sediment control plans". This is essential and should be implemented.

g. The EIS mentions that a "specific water quality monitoring programme for Georges River has been established for the project. This programme commenced in July 2013 and will run for two years. Two years is not considered an adequate period for monitoring and should be extended over 2015-2018 to encompass the life of the construction and establish an adequate baseline.

h. The development of the bridge crossing and their associated piers within the Georges River will impact on the Georges River including overshadowing instream habitat, altering the flow regime, increasing turbidity and potentially exacerbating erosion and scouring of the river bank. The EIS has not adequately surveyed and investigated aquatic habitat in the Georges River as no aquatic surveys have been undertaken.

i. The EIS states (Section 5.3, Technical Paper 6- Surface Water Assessment Part B) that "No formal treatment systems have been designed for discharges that cannot flow to detention basins (i.e. to Anzac Creek) and it is intended that a combination of onsite raingardens and swales will be designed in the detailed design stages to address water quality from these catchments". This needs to be addressed further to ensure the water quality of the Georges River is not adversely impacted.

Stormwater Management measures need to be implemented and maintained in the long term to ensure water quality of the Georges River is protected. The proposed soil and water management plan including erosion and sediment control plans as per Section 4.3.1 need to be adhered to. The GRCCC member Councils are working hard towards monitoring and implementing on ground actions to protect and improve the ecosystem health of the Georges River and these efforts should not be negated.

2. Impacts on Biodiversity and loss of habitat

The following concerns are raised with the developments impacts on vegetation communities and biodiversity including endangered and threatened ecological communities:

a. No surveys were undertaken for this EIS on Aquatic habitat and aquatic threatened species. The EIS states that there is unlikely to be an impact on any threatened aquatic species (Technical paper 3 Ecological Impact Assessment pg 29 & pg 75 section 3.10). However, the information relied upon was previous studies completed for the SIMTA proposal near Anzac Creek and a 2004 study titled *Biodiversity of the Georges River Catchment* and only a desktop assessment has been conducted for this development. The EIS assumes the aquatic habitat is in a degraded condition and any native species present are likely to be disturbance tolerant (section 4.2.1.4). The bridge construction (shading) and any associated piers within the channel will have an impact on aquatic vegetation and therefore habitat and without adequate studies, the impact on aquatic fauna is unknown.

b. The clearing of native vegetation (key threatening processes under relevant legislation) to facilitate construction and rail access to the site will have a significant adverse impact on vegetation including the Riparian zone. The EIS notes that near natural levels of plant diversity exist in the riparian area and along Moorebank Avenue (155 native species and 78 exotics). Riparian land functions as a vegetation wildlife corridor and a buffer to protect soil stability, water quality and aquatic habitats. The EIS identifies and assigns a high value for ecological integrity to the Riparian Forest vegetation community (Figure 2.3 pg 31) that supports threatened animal species (Table 3.9 pg 61). According to the EIS, the central rail access option has the greatest impact on riparian remnant vegetation. The riparian forest also plays an important role as a corridor as it is well connected to vegetation to the south at the Holsworthy Army

base (pg 57) further exacerbating any impacts of development in this area. The EIS is somewhat contradictory in saying that long term weed control and restoration of the riparian vegetation will improve the overall ecological condition (section 4.2.1.4 pg 85) when in fact the riparian area has already been identified as having high ecological integrity and value.

c. The cumulative land proposed to be cleared is 44 to 52 hectares (ha). Including the SIMTA development the total increases to 75-83 ha. The central and southern rail access options have the greatest impact on threatened ecological communities and fauna movement (Section 4.6.2.2 pg 103)

d. The EIS outlines that all native vegetation communities on site are threatened and have high value as potential habitat for threatened species of plants and animals (pg 30, 2.7 and the table 3.2 on pages 39-40 identifies potential fauna occurring on site).

   Substantial areas of vegetation remain in both the riparian zone in the west, north-west and to the eastern boundary of the site along Moorebank Avenue that have high value for ecological integrity (Figure 2.3 pg 31). To the south there is vegetation that still has significant habitat value and is connected to the riparian zone (pg 35).

   These communities have been identified as being in moderate to good condition with high ecological integrity, vulnerable and endangered species recorded within the communities such as Castlereagh Scribbly Gum Forest (high value ecological integrity assigned as part of the EIS pg 44). The River Flat Eucalypt Forest, which is an Endangered Ecological Community, distribution is restricted to the Georges River and Hawkesbury-Nepean system, and will be impacted by the development and in particular the northern rail access option (pg 37 EIS Paper 3). This forest community comprises intact and mature canopy of Alluvial woodland with Eucalyptus and Angophoras Trees that are habitat for a variety of fauna for example Powerful Owls.

   Clearing is proposed of moderate to good condition vegetation across the sites eastern boundary (Moorebank Avenue) which impacts on the Castlereagh Scribbly Gum Woodland **a vulnerable vegetation community**. All rail access options impact on this forest community with all of this vegetation on the site proposed to be removed (16.1ha – 100% cleared). The extent of the Alluvial Forest comprising the **EEC** River Flat Eucalypt Forest to be cleared ranges between 71% to 85% of the current 35.6ha area. **The clearing of this vegetation as part of each of the three rail options within the riparian zone will result in a significant loss of high value and intact vegetation and biodiversity.**

   Fauna habitat will be impacted, for instance this translates into 100% (17ha) of Shrubby eucalypt woodland cleared in addition to clearing between 53% to 69% of tall eucalyptus forest across all three rail access options.

e. It is of concern that clearing will impact on two plant species found on site that are listed under the *Environmental Protection Biodiversity Conservation Act* as follows:
   a. Persoonia nutans **endangered** (10 individuals recorded)
   b. Grevillia parviflora **vulnerable** (16 species recorded) also listed under as *TSCA*.
   c. There are approximately 6 more threatened species e.g. wattles with moderate likelihood of occurrence on the site that are listed as vulnerable under the EPBC Act (Table 3.6 pg 52) and the Small Flower Grevillia and Nooding Geebung were recorded on site.

   The EIS states that the translocation of the two EPBC plant species found on site will be considered during the construction EMP (section 4.2.1.3 pg 84). This should be resolved as part of the concept proposal.

f. The EIS (3.5.2 pg 55) states that there is low to moderate chance of threatened plant species occurring in the rail access options. However, this contradicts the EIS findings for the rest of the site and in particular, in the riparian zone where there are threatened vegetation communities that have been identified as supporting threatened species with moderate chance of occurrence.

g. The land clearing will impact on the connectivity to surrounding bushland areas particularly along the western bank of the Georges River where Liverpool Council has invested significant resources into its rehabilitation through re-vegetation.

h. It is noted that the proposed bridges for the rail access into the site are not considered as part of the connectivity assessment as it is assumed that the bridges are unlikely to sever habitat connectivity. However, the bridge piers alone and associated infrastructure is considered likely to impact on vegetation connectivity. The EIS identifies that the rail link will cause fragmentation and a break in the canopy of riparian vegetation approximately 50m wide and also the overland drainage channels are 10m wide and will also result in fragmentation of habitat connectivity (4.2.1.6).

i. The EIS recorded 92 species of animals on the site (3.7, pg 57). There is a significant abudance of fauna and the EIS states that there is the "presence of areas on site with substantial value as fauna habitat". The EIS (Table 3.10 pgs 63 - 64) notes there is both moderate and moderate to high threatened fauna habitat and migratory bird habitat at each of the rail access options supporting the following species for instance Cattle Egret, Regent Honeyeater **(critically endangered),** Cumberland land snail, Powerful Owl, Quolls, Possums and Koalas. There are also 10 migratory bird species protected under international agreements (section 3.9).

j. The proposal will result in the removal of more than 46 mature hollow bearing trees that may be suitable roosting/breeding habitat for a range of arboreal mammals, birds and reptiles, microbats and frogs (EIS 4.2.1.2 pg 83). This includes 4 threatened species of birds and bats e.g. Powerful Owl and Eastern Free-tail bat.

k. The proposal will result in the removal of 3 of the 4 existing detention basins currently used as foraging and breeding habitat for frogs, reptiles and birds. While the proposal includes 4 new detention basins, there is no commitment to replace this habitat and the EIS only recommends that this be explored in the detailed design proposal as replacement habitat (pg 85).

l. There are concerns with Biosecurity and pest control at this site and the broader Georges River catchment area, given the nature of this proposal including the import and export of goods from overseas and interstate transport. The EIS does not adequately detail management measures in this regard.

m. It is uncertain that the vegetation offsets proposed will be provided and dedicated as the means by which this arrangement will be secured has not been resolved (Section 6.3.3.6). This should be clarified given that the land is in commonwealth ownership.

n. The offsets proposed for the removal of the Alluvial Woodland (0.6 to 0.9 : 1) falls below the acceptable ratio of 2 to 2.6 : 1 applied for all other vegetation communities on the site. The EIS states that offsets should be proportional to the impact.

3. Impacts of litter on the Georges River

The NSW Environmental Protection Authority collected data over 2011-12 regarding litter hot spots and identifies industrial areas as the largest contributors to litter and priority sites for litter prevention. Given the vast number of trucks frequenting the site associated with the warehousing and both IMEX terminal and interstate terminals, site activities are most likely to generate large volumes of litter. Litter prevention measures are required noting that in NSW generally the accepted objective is to aim for 90% removal of gross pollutants. In order to minimize

and capture litter generated from this site at its source and avoid downstream gross pollutants in the Georges River, the MIC should install a water wheel within the River itself to capture litter and to regularly maintain and service the wheel and collect this rubbish.

The GRCCC is calling on both the State and Federal government to review this development proposal and protect the biodiversity and the water quality of the Georges River. The concerns raised in this submission are also supported by GRCCC member Councils Liverpool City Council, Wollondilly Shire and also Hurstville City Council whom will be making an independent submission. The long-term management of the Georges River and its catchment can only be achieved by councils, state and federal agencies working together. Should you require further information please contact Svetlana Kotevska on 9330 6057.

Yours Sincerely

Svetlana Kotevska

GRCCC Program Manager

Cc Mr Greg Hunt, Federal Environment Minister