NSW GOVERNMENT | Department of Primary Industries

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OUT15/16405

Mr Andrew Beattie
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NSW Department of Planning and Environment
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Dear Mr Beattie

SIMTA Stage 1 – Intermodal Terminal and Rail Connection, Moorebank (SSD_6766)
Adequacy of the Environmental Impact Statement

I refer to your email dated 27 May 2015 to the Department of Primary Industries in respect of the above matter.

Comment by Fisheries NSW

Fisheries NSW is responsible for ensuring that fish stocks are conserved and that there is no net loss of key fish habitats upon which they depend. To achieve this, Fisheries NSW ensures that developments comply with the requirements of the *Fisheries Management Act 1994* (FM Act) (namely the aquatic habitat protection and threatened species conservation provisions in Parts 7 and 7A of the Act, respectively), and the associated *Policy and Guidelines for Fish Habitat Conservation and Management (2013)*. Fisheries NSW is also responsible for ensuring the sustainable management of commercial, recreational and Aboriginal cultural fishing, aquaculture, marine parks and aquatic reserves within NSW.

Fisheries NSW has reviewed this Environmental Impact Statement in light of potential impacts to aquatic habitat. The proposed mitigation measures relating to the treatment of stormwater, erosion and sedimentation control, soil and water management, maintenance of fish passage, riparian vegetation management, the Construction Environmental Management Plan and the Project Specific Procedure are commended. These measures will need to be mitigated to mitigate potential impacts on aquatic habitats.

It is strongly recommended that the staging of in-water works during bridge construction works across the Georges River considers avoidance of the migration season of Australian Bass (June to January), as far as possible.

The construction of any new stormwater outlets to the Georges River will need to include scour protection works.

Fish passage in the Georges River will definitely need to be maintained during construction. While the EIS refers to the construction of two temporary platforms within the Georges River during the bridge works, no information on the dimensions or staging of these structures has been provided. Fisheries NSW recommends that where possible:

- Works are staged so that there is only one temporary platform in the river at one time; and
- Culverts are placed within the temporary working platforms to reduce impacts to fish passage during construction.

The temporary construction platforms will need to be removed from the river after construction. Erosion and sediment control measures around these platforms will be required. Fisheries NSW request to be consulted during detailed design of the temporary working platforms in the Georges River.

A visual inspection of the Georges River for dead or distressed fish (indicated by fish gasping at the water surface, or fish crowding at the creek's banks) is to be undertaken daily during the works. Observations of dead or distressed fish are to be immediately reported to the Fisheries contact stated below. In such a case all works are to cease until the issue is rectified and approval is given to proceed.

Fisheries NSW requests the opportunity to review the final:

- Project Specific Procedure for bridge works across the Georges River, including plans and staging of the proposed temporary construction platforms for the bridge over the Georges River, and associated erosion and sediment control plans.
- Construction Environmental Management Plan
- Erosion Sediment Control Plan / Soil and Water Management Plan
- Riparian Vegetation Management Plan.

For further information please contact Carla Ganassin on (02) 4222 8342 or carla.ganassin@dpi.nsw.gov.au

Comment by NSW Office of Water

The NSW Office of Water (Office of Water) has reviewed the Environmental Impact Statement and comments are provided below and at **Attachment A** for consideration.

In terms of mitigating impacts on the Georges River and the riparian corridor, the Office of Water considers that only one bridge should be constructed for SSD-6766 and SSD-5066 and the location of adopted new bridge/rail link should cause least impact/disturbance to existing remnant riparian vegetation and the river. The location of the new bridge/rail link needs to be resolved.

The Anzac Creek crossing/ rail link should minimise impacts on the creek, riparian corridor and remnant vegetation. Technical reports accompanying the EIS indicate there is an existing rail crossing/rail link to the SIMTA site. Further details need to be

provided on the existing rail line/culvert crossing and whether it is possible to use it rather than construct a new rail line and disturb another section of creek and remove additional riparian vegetation/remnant vegetation.

For further information please contact Janne Grose, Water Regulation Officer on (02) 8838 7505 or at Janne.Grose@dpi.nsw.gov.au.

Yours sincerely

Kristian Holz
Director Policy, Legislation and Innovation

Attachment A

SIMTA Stage 1 – Intermodal Terminal Facility – Moorebank Avenue, Moorebank *(SSD_6766)*
Request for comment on adequacy of EIS
Additional comments NSW Office of Water

Georges River

Location of the Bridge Crossing:
The Office of Water previously recommended that the location of the proposed new bridge crossing of the Georges River for SSD-6766 not be selected in isolation to the bridge crossing required for SSD-5066. The EIS for the Moorebank IMT project (SSD-5066) presented three possible bridge crossing locations, namely a southern, central and northern option. The Office of Water recommended only one bridge crossing is constructed and that the EIS for SSD-6766 include an assessment of the other crossing options (central and northern). In response the
EIS for SSD-6766 notes the Moorebank Intermodal Company (MIC) and SIMTA have reached an agreement to develop the two IMT sites as a whole of precinct strategy (see Section 1.5). The EIS indicates the PAC's Assessment Report for the Concept Plan Approval advised "*the Commission believes there should only be one rail corridor accessing the site in the event both proposals proceed*" and notes that "*on this basis it is considered unlikely there would be two separate rail crossings proposed*" (see Table 6.4, page 107). The EIS however, only presents the southern bridge option and indicates the two projects are considered separate until the terms of this agreement are finalised and for the purposes of the EIS the projects have been assessed separately (page 7). In terms of mitigating impacts on the Georges River and the riparian corridor, the Office of Water repeats that only one bridge should be constructed and the location of the new bridge/rail link is not selected in isolation the bridge requested for SSD-5066. The adopted location should cause least impact/disturbance to existing remnant riparian vegetation and the river.

As Stage 1 of the SIMTA project includes construction and operation of the rail link, the location of the rail crossing/rail link should be resolved prior to determining SSD-6766. Alternatively, a Condition of Approval is included which outlines that only one bridge crossing is to be constructed for SSD-6766 and SSD-5066 at a location that causes least impact to the river and riparian corridor.

Riparian corridor and bridge design
Figures 1 and 3 in Appendix S show riparian corridors along the river and Anzac Creek but clarification is required on the riparian widths that are proposed to be protected/rehabilitated along either side of these watercourses. The EIS refers to a minimum 50 m wide riparian corridor along either side of the river and a 30 m wide riparian corridor along either side of Anzac Creek (see Section 14.1.1, page 298). These widths are consistent with the Final Statement of Commitments (dated 12 June 2014) for the SIMTA Moorebank Intermodal Facility Concept Plan (MP10-0193). It is recommended Appendix S is amended to identify and clearly show the riparian corridor widths (measured from top of bank) to be established along either side of the Georges River and Anzac Creek.

The EIS notes the rail link would be constructed within a 20 m wide corridor and the width of the rail link would be maintained in a low fuel state (Section 20.3.3, page 459). Mitigation Measure 14D (Table 22.1 in the EIS) requires the rail link will be maintained in

a low fuel state. Further details are required on what this entails as Table 6.4 implies that once construction is completed the 20 m wide corridor would be revegetated (page 107) and Table 6.11 notes disturbed areas of the riparian corridor would be rehabilitated post construction to maintain habitat connectivity (page 124). Clarification is required on which areas are to be rehabilitated.

The rail link will permanently remove and disturb riparian vegetation. Table 39 in Appendix S includes a mitigation measure that "*disturbed riparian areas within the Georges River would be revegetated with locally occurring native species...*" (page 185). It is suggested this measure is amended to clarify that riparian corridors which are temporarily disturbed by the project will be revegetated with locally occurring native species and where riparian vegetation is permanently removed/disturbed these areas should be offset elsewhere along the river and the VMP should include details on the areas to be revegetated.

An area along the west bank of the river is currently without native vegetation and is in close proximity to the rail link (Figure 38, Appendix S, page 196). It is recommended a management measure is included which requires this area to be rehabilitated with local native species to offset any permanent removal and disturbance of riparian vegetation and the VMP includes details.

The Office of Water previously recommended that the design of the crossing should be elevated and span the riparian corridor if feasible. The EIS indicates the bridge crossing would be elevated to facilitate vegetation regrowth (page 481). Clarification is required on whether:

- the elevated bridge will span the full width of the riparian corridor (ie. 50 m either side of the river),
- the bridge design will incorporate provision for moisture penetration under the bridge to enable plant growth.

The EIS notes the bridge design would include light penetration to encourage fish passage (page 258) but both light and moisture penetration are required under the structure to enable riparian vegetation to grow under the bridge

Section 11.3.1 of the EIS notes the likely construction timeframe for the bridge is 8-12 months and it indicates piling platforms would remain in the river during this time. Appendix S notes another alternative would be to use a river barge rather than construct piling platforms into the river from either bank (page 157). The method that is adopted should cause the least impacts/disturbance to the bed and banks of the river, riparian vegetation, aquatic habitat etc.

The EIS refers to constructing a temporary access track to the river to construct the railway bridge (Section 4.4.3). It refers to decommissioning the construction site but it is unclear if the project proposes to remove, stabilise and revegetate the temporary access track at the completion of construction. Clarification is required on this and it is recommended a management measure is included that specifically requires rehabilitation of the access track.

Sediment ponds

Section 4.4.6 indicates swales would flow to sediment ponds which would be located within Anzac Creek and Georges River. Details are required on the location of the proposed sediment ponds. It is recommended the sediment ponds are located outside the riparian corridors.

Anzac Creek

Creek Crossing

Figure 3 of Appendix B in the Stormwater and Flooding Assessment report shows there is an existing railway line with a culvert crossing of Anzac Creek that enters the SIMTA site from the south. The Aquatic Ecology report indicates the rail crossing is currently unused (see section 1.3, page3). The existing rail access track /crossing is located approximately 230 m downstream from the proposed new rail crossing.

Further details need to be provided on the existing rail line/culvert crossing and whether it is possible to use the existing rail line to connect to the SIMTA site rather than construct a new rail line and disturb another section of the creek and remove additional riparian vegetation/remnant vegetation. If it is not feasible to use the existing rail line, the existing line and culvert crossing should be removed and the creek/riparian corridor/ remnant vegetation rehabilitated as part of this project.

The EIS and accompanying reports do not indicate that the riparian corridor disturbed by the culvert construction will be rehabilitated at the crossing site or elsewhere along the creek (see page 60). A management measure needs to be included to rehabilitate riparian areas disturbed by the project.

Appendix S indicates there is an access track south of Anzac Creek. It notes that along the track there is a quantity of dumped rubble (page 64). Figure 4 in the Remedial Action Plan shows the western end of the access track is located within the riparian corridor on the southern side of the creek. Further details are required on the access track and whether it is to be used as part of the SIMTA project. If the access track is not to be used during the operational life of the project, it is recommended the track is rehabilitated and revegetated as part of this project.

Figure 38 in Appendix S shows an area along the southern side of Anzac Creek without native vegetation (page 196). This area is in close proximity to the proposed rail link. Where riparian vegetation is permanently removed by the project, it is recommended a management measure is included that requires this area to be rehabilitated with local native species to assist offset any permanent removal of riparian vegetation.

Section 4.2.2 of the EIS notes the Anzac Creek culvert will include two dry cells to facilitate fauna crossing. The design should also include provision for light to enter the multi-cell box culverts to facilitate fauna movement.

Section 11.4.1 of the EIS indicates all temporary works, flow diversion barriers and in-stream sediment control barriers would be removed as soon as practicable (page 257). These areas should be:

- stabilised using soft engineering techniques and any vegetation that was removed rehabilitated.
- monitored and maintained until certified as stable and rehabilitated.

The EIS notes the construction site would be left in a condition that promotes native revegetation (page 257). To ensure the construction area is adequately stabilised it should be rehabilitated with native vegetation rather than left to promote revegetation.

Sediment ponds

Section 4.4.6 indicates swales would flow to sediment ponds which would be located within Anzac Creek and Georges River. Where possible the sediment ponds should be located outside the riparian corridor of the creek

Riparian Vegetation Management Plan

The EIS refers to a minimum 50 m wide riparian corridor along either side of the river and a 30 m wide riparian corridor along either side of Anzac Creek (see Section 14.1.1, page 298) which is consistent with the Final Statement of Commitments (dated 12 June 2014) for the SIMTA Moorebank Intermodal Facility Concept Plan (MP10-0193). The VMP needs to be amended to clarify and clearly show the riparian corridor widths to be established along either side of the Georges River and Anzac Creek (measured from top of bank), particularly as Appendix A (Statements of Commitments) indicates the riparian setbacks for Anzac Creek and the Georges River are addressed in the Riparian Vegetation Management Plan.

Management Sites

The VMP indicates it applies to two management sites (Section 1.2, page 2). It is unclear how the width of the two management sites has been determined. It is recommended the widths of the management sites incorporate the riparian corridor widths and the riparian corridor widths are shown in the Plan.

As the rail link extends along the western side of the Georges River adjacent to remnant native vegetation, clarification is required as to why the Georges River management area does not also include the riparian corridor adjacent to the rail link along the west bank of the river.

The Biodiversity Assessment Report indicates the riparian buffer 50 m either side of the river is considered to be a state significant biodiversity link (see section 3.4, page 49). Section 3.5 of the VMP notes the river near the proposal is between 40 to 60 m wide (page 12). The width of the river is likely to create a barrier to the movement of less mobile species (ie less mobile species would be constrained to one side of the river corridor). Section 3.6.1 notes the width of existing native riparian vegetation on the western side of the river within the Georges River Management site is between 20-50 m. Where the existing vegetation is less than 50m in the Georges River Management site, it is recommended the corridor is rehabilitated to a minimum width of 50 m to assist improve the value and function of the biodiversity link.

Noxious Weeds

The VMP and Appendix S indicate Alligator weed, Salvinia and other noxious weeds are present along the Georges River and Anzac Creek (see Tables 23 and Tables 3, 6 and 7). The weeds have the potential to negatively impact the aquatic ecosystem at the site and downstream.

The VMP notes Alligator weed is present in high abundance in Anzac Creek (page 19) and Appendix S notes there is a dense infestation of Alligator weed within the lower stratum of the wetland on Anzac Creek (page 75). Appendix S indicates Salvinia occurs adjacent to the existing culvert (page 83). It is unclear if noxious weeds (including Alligator weed and Salvinia) occur in proximity to the proposed construction works on Anzac Creek, or upstream of the works on the adjoining Moorebank IMT site where the headwaters of Anzac Creek commence.

If an assessment has not been undertaken to determine if noxious weeds are present along the entire upstream length of creek, it is recommended an assessment is undertaken, particularly if the noxious weeds have the potential to spread downstream if they are disturbed by the proposed works in the creek and riparian corridor.

4.2.1 Primary Weed Control

Section 4.2.1 of the VMP notes primary weed control *"will ideally be carried out"* prior to commencement of the proposed bridge and culvert construction works (page 18). For weeds that have the potential to spread downstream if they are disturbed by the works, weed control should be undertaken prior to any construction works on the creek and river. It is recommended Section 4.2.1 is amended to remove the word "ideally" especially in relation to weeds that have the potential to spread downstream if they are disturbed by the works.

If noxious weeds occur on the adjoining Moorebank IMT site, it is recommended a joint weed management program is undertaken for SSD-6766 and SSD-5066 to control these weeds.

4.3.1 Secondary Weed Control

Section 4.3.1 of the VMP notes that ongoing maintenance of weeds will be required (page 21). In terms of protecting and maintaining the riparian corridors, it is suggested the VMP is amended to state that ongoing maintenance of weeds is required for the operational life of the project.

4.4 Revegetation

Section 4.4 of the VMP refers to the propagation of plants collected from native seed prior to vegetation clearing. In addition it is suggested the revegetation methods in the VMP include:

- topsoil (and seedbank) shall be removed from native vegetation areas that are to be permanently cleared and it is to be relocated and used in the revegetation areas
- native plants are to be transplanted from the areas to be permanently cleared to revegetation areas.

Table 9 - Summary of Vegetation Management Measures

It is recommended the following amendments are included in Table 9:

The Revegetation management measures currently include a measure that "riparian areas cleared for construction adjoining Georges River would be revegetated as soon as practicable upon completion of the bridge works". It is recommended the VMP amends this measure as follows:

- Riparian areas ***that are temporarily*** cleared for construction adjoining Georges River would be revegetated as soon as practicable upon completion of the bridge ***and rail link*** works. ***Where construction works permanently remove riparian vegetation from along the river, the cleared area is to be offset by rehabilitating the western side of the river that is currently without native vegetation as shown in Figure 38 of Appendix S or revegetating the riparian corridor width within the Georges River Management site.***

The Revegetation management measures should also include:

- topsoil (and seedbank) is to be collected from native vegetation areas that are to be permanently cleared and used in the revegetation areas

- native plants in areas that are to be permanently cleared are to be transplanted to the revegetation areas.
- riparian areas that are to be temporarily cleared along Anzac Creek are to be revegetated as soon as practicable. Where construction works permanently remove riparian vegetation along the creek, the area that is cleared is to be offset by rehabilitating
  - the existing crossing/ rail line
  - the area along the southern side of Anzac Creek without native vegetation (see Figure 38 in Appendix S, page 196)
  - the access track on the southern side of the creek.

The Monitoring and Reporting includes a management measure to prepare a monitoring report during the construction and maintenance period. It is suggested the management measure includes that ongoing monitoring and maintenance is required for the operational life of the project.

Aquatic Ecology

The Aquatic Habitat Assessment in the EIS (Appendix S-3 Biodiversity Offset Strategy – Part B) is not considered to be adequate to determine if the project is likely to have an adverse impact on the ecology of Anzac Creek and the Georges River.

The survey monitoring design is poor. It is unclear how the project would detect any variation or change and measure/predict impacts if one occurred. The sampling was undertaken during 1 day (12 May 2011). There is no data to compare it to. There is no replication. No additional macro invertebrate surveys have been undertaken since 2011. No sampling has been undertaken above and below the locations of potential impact and no reference streams have been surveyed.

Section 4.3 of the Aquatic Habitat Assessment indicates Anzac Creek at the location of the study site is considered to be intermittent waterway or wetland and would only flow following a substantial rain event (page 17). The EIS notes the overall Australian Rivers Assessment System (AUSRIVAS) rating for macro invertebrates in the creek indicates the macro invertebrate community was 'significantly impaired' (page 240) but AUSRIVAS is not designed to be used for intermittent streams and won't accurately predict impacts.

The Aquatic Ecology report indicates that sampling of Anzac Creek was undertaken downstream of a currently unused rail culvert crossing (see section 3.5.2, page 15) which is located downstream of the proposed new rail crossing for this project. No comparative macro invertebrate sampling was undertaken upstream of the proposed new crossing.

The Georges River survey site extended from beneath the existing East Hills Railway Bridge for 100 m downstream which would appear to include the proposed new rail crossing site.

There is need for a better spatial design (additional locations such as reference, up and downstream of impact etc) as well as more sampling occasions. It is suggested additional baseline aquatic monitoring is undertaken to obtain additional baseline data and that monitoring is undertaken during and following construction to identify any changes in aquatic communities as a result of the proposal. The results of the monitoring should be included as part of the required reporting framework of any consent.

Groundwater

Section 11.3.1 of the EIS notes construction of the proposal would generally require the raising of the site and rail link and minimal excavation would be required. It considers it is unlikely that groundwater would be encountered during construction but may be encountered during piling associated with the bridge construction (page 246). If groundwater is encountered during construction the Office of Water should be contacted and it is recommended this is included as a Mitigation Measure and included in the dewatering procedure that is to be developed (see page 258).

Depending on the volumes encountered and the duration of pumping, an authorisation may be required from the Office of Water in relation to dewatering activities. Consultation with the Office of Water is required to determine these requirements. The Office of Water can advise on the need for an authorization once information is available on the expected groundwater inflows.

Mitigation Measures

It is recommended the following amendments are made to the Mitigation Measures in Table 22.1 of the EIS.

5. Hydrology:

Management Measures 5B (page 531)

The first dot point under Management Measures 5B refers to the potential use of piling platforms to construct the Georges River bridge. It is suggested this measures outlines ***the method that is adopted to construct the bridge (including the use of a river barge or piling platforms) must minimise the potential impacts/disturbance to the bed and banks of the river***.

It is suggested the ninth dot point which relates to the dewatering procedure to manage groundwater ingress includes: ***If groundwater is encountered during construction the Office of Water should be contacted to determine if an authorisation is be required***.

Management Measure 5C (page 532)

All temporary works, flow diversion barriers and in-stream sediment control barriers will be removed as soon as practicable and in a manner that does not promote future channel erosion. ***The works areas will be stabilised using soft engineering techniques and any vegetation that is removed will be rehabilitated. The temporary works areas will be monitored and maintained until certified as stable and rehabilitated***.

The construction site ***will be rehabilitated with native vegetation and*** will be left in a condition that promotes native revegetation (page 532).

Management Measure 5E should also include:

Light and moisture penetration under the bridge to encourage the growth of native riparian vegetation

Management Measure 5F

A multi-cell culvert design with a combination of elevated 'dry' cells to encourage terrestrial movement, and recessed 'wet' cells to facilitate fish passage ***and provision to provide light penetration***

8. Biodiversity

Management Measure 8B – as this measure requires riparian vegetation to be managed in accordance with the measures detailed in the VMP, the VMP needs to be amended in accordance with the above recommendations relating to the VMP and that management measure 8B is amended as follows:

- Riparian vegetation within and adjoining areas of impact will be **protected, rehabilitated and** managed in accordance with the measures detailed in the Riparian Vegetation Management Plan. ~~Disturbed~~ Riparian areas ***temporarily disturbed along*** ~~in~~ the Georges River and Anzac Creek will be revegetated with locally occurring native species as soon as practicable upon completion of bridge works. ***Riparian vegetation that is permanently removed will be offset along the river and creek in areas identified in the VMP.***

The Aquatic Ecology report notes Anzac Creek may be an important source of macro invertebrate colonisers to the Georges River and notes that ongoing monitoring of macro invertebrate communities downstream of the development may assist in identifying changes in aquatic communities and help to minimise any potential impacts that may occur (see section 4.2, page 17). It is recommended the following additional Biodiversity management measure is included for this project:

- ***ongoing monitoring of macro invertebrate communities will be undertaken prior to, during and following construction with additional locations such as reference and upstream and downstream of the proposed impact to assist identify any changes in aquatic communities***

End Attachment A