



Your reference: SSI-6103  
Our reference: DOC14/170575  
Contact: Krister Waern (02) 6640 2503

Mr Michael Young  
Senior Planner-Infrastructure Projects  
Department of Planning & Environment  
GPO Box 39  
Sydney NSW 2001

Attention: Ms Joanne Glass

Dear Mr Young

**Re: Additional Crossing of the Clarence River at Grafton (SSI - 6103)  
Notice of Environmental Impact Statement Exhibition  
Issued pursuant to Section 115Z(4) *Environmental Planning and Assessment Act 1979***

Thank you for your letter dated 18 August 2014 requesting comment from the Office of Environment and Heritage (OEH) on the Environmental Impact Statement (EIS) exhibited for the above-mentioned State Significant Infrastructure project. I appreciate the opportunity to provide input.

OEH's primary interest in the proposal relates to potential impacts on biodiversity, Aboriginal cultural heritage values, and flooding matters. I understand that the applicant is dealing with the Heritage Council directly in relation to historic heritage.

OEH has reviewed the EIS and has identified the following matters requiring further consideration:

- The adequate assessment and offsetting of proposed impacts on biodiversity and incorporation of environmental safeguards documented in the EIS Appendix L into the conditions of any approval;
- Aboriginal cultural heritage matters in relation to review of the archaeological test excavation methodology by OEH and incorporation of the Aboriginal cultural heritage assessment recommendations in the EIS into the conditions of any approval; and
- The adequate assessment of flood mitigation options and evacuation planning, and consultation with Clarence Valley Council on flooding impacts associated with the project.

OEH recommends that the proponent be required to provide the additional information specified above, as detailed in **Attachment 1** to this letter, and that OEH is provided with a further opportunity to review this new information and/or project modifications before this project proceeds to the determination stage.

Should you require further information or clarification, or should Council be in possession of information that suggests that OEH's statutory interests may be affected, please contact Senior Operations Officer, Mr Krister Waern, on (02) 6640 2503.

Yours sincerely

*Dimitri Young 18 September 2014*

**DIMITRI YOUNG**  
**Senior Team Leader Planning, North East Region**  
**Regional Operations**



**Attachment 1 – Detailed OEH Comments**  
**Additional Crossing of the Clarence River at Grafton (SSI-6103)**

**Biodiversity comments**

OEH has reviewed section 8.9 of the Environmental Impact Statement (EIS) and Appendix L – Biodiversity Technical Paper: Flora and fauna assessment in relation to the project.

OEH notes that within the Targeted Threatened Species Survey Report for the Three-toed snake-tooth skink of the Technical Paper, Figure 1 is incorrect. It shows the known records of the koala instead of the Three-toed Snake-tooth skink. This should be corrected.

The EIS has identified that the project would result in the following impacts to biodiversity:

- The removal of approximately 0.41 ha of vegetation constituting two threatened ecological communities (TECs), listed under the TSC Act, 0.10 ha of *Freshwater Wetlands on Coastal Floodplains*, and 0.31 ha of *Subtropical Coastal Floodplain Forest*
- The removal of hollow bearing and habitat trees within the project area, including a eucalyptu, a River She-oak, and five large Moreton Bay Fig habitat trees, considered likely to provide potential roosting and foraging resources for threatened bird and microchiropteran bat species.
- The impacts from the proposal may impact on potential threatened species habitat areas for threatened and migratory species including microchiropteran bats, fish species, Hairy-joint Grass and the Three-toed Snake-tooth skink.
- The EIS states that '*a total of approximately 4.82 ha of potentially suitable habitat for the Three-toed snake-tooth skink exists within the project area in the form of Sub-coastal Floodplain Forest and Freshwater Wetlands TEC's, and Native and exotic plantings throughout the town. In addition to the 4.82 ha, suitable habitat exists within the indicative ancillary sites by the Clarence River in North Grafton, where surveys have not been undertaken due to access restrictions*'.

Given the impacts and potential impacts of the proposal, OEH notes that section 8.9.3 of the EIS identifies that biodiversity offsets have been considered, taking into account *the Principles for the use of biodiversity offsets in NSW* developed by OEH. The EIS also states that '*Offsets would not be required given that the amount of threatened ecological communities to be cleared is minimal in nature and that the project would not clear native vegetation or threatened species and/or threatened species habitat of very high conservation value. Also, the existing communities are already highly disturbed and in a degraded condition, and thus of low value*'.

OEH's understanding of the offsetting principles do not correspond with the above statement that offsetting is not required because the area of impact is small and degraded. The offsetting principles require that all impacts which cannot be avoided or mitigated are to be offset.

It should be noted that the offsetting principles referred to are used for proposals other than those for state significant development (SSD) or state significant infrastructure (SSI). A NSW Biodiversity Offsets Policy for Major Projects has been developed to deal with proposals for SSD and SSI. This offset policy sets out the offset principles to be used for Major Projects and would also require the impacts of the proposal on biodiversity to be offset.

Despite the above statement in the EIS that offsets are not required, the conclusions of the Biodiversity Technical Paper state that '*To address loss to biodiversity values such as hollow bearing and habitat trees, 0.41 ha of TEC vegetation and foraging resources, Roads and Maritime would develop the FFMP inclusive of a Revegetation Management Sub-Plan and Microbat Management Sub-Plan to compensate for impacts in consultation with NSW Office of Environment and Heritage*'.

OEH acknowledges that the proposed *Revegetation Management Sub-Plan and Microbat Management Sub-Plan* may be able to address OEH's concern about the lack of offsets in relation to the impacts of the

proposal. However, there has been no detail provided of how the plans referred to will compensate for the proposed impacts.

OEH is willing to liaise with Roads and Maritime Services (RMS) to ensure that the compensation (offsets) for the direct and indirect impacts of the proposal is appropriately considered. A proposal to assess and offset impacts of the proposal may reference the OEH Framework for Biodiversity Assessment. A key principle underpinning this framework is that offset requirements should be based on a reliable and transparent assessment of biodiversity losses and gains.

**Recommendations:**

1. An offset proposal should be developed to the satisfaction of OEH to address the proposed biodiversity impacts of the proposal.
2. The environmental safeguards documented in Table 19 Section 6 of the EIS Appendix L should be incorporated into the conditions of approval.

**Aboriginal cultural heritage matters**

OEH reviewed the Additional Crossing of the Clarence River at Grafton (Appendix H Technical Paper) Aboriginal Heritage Assessment (August 2014) with regards to the consistency of the assessment with the DGRs. The review indicates the assessment included consideration of both the cultural and the archaeological significance of Aboriginal objects and potential archaeological deposits (PAD) assessed.

It is noted the assessment outlined measures to avoid significant impacts to Aboriginal objects within and adjacent to the development. The Aboriginal Heritage Assessment documents the avoidance measures negotiated with the registered Aboriginal stakeholders.

OEH further notes the appended Additional Crossing of the Clarence River at Grafton Archaeological Assessment (August 2014) appears to have been undertaken by suitably qualified heritage consultants, demonstrates effective consultation with Aboriginal communities and documents the archaeological and cultural significance of cultural heritage values within and adjacent to the area. However, OEH cannot identify any evidence of the archaeological assessment methodology used to guide the archaeological test excavations being developed in consultation with OEH.

OEH supports the recommendations detailed in the report particularly the avoidance of any further encroachment towards the Golden Eel dreaming site.

**Recommendations:**

1. The recommendations of the Additional Crossing of the Clarence River at Grafton Archaeological Assessment (August 2014) should be incorporated into the conditions of approval.
2. Prior to works commencing, an archaeological assessment methodology used to guide the archaeological test excavations should be prepared to the satisfaction of OEH.

**Flooding matters**

The comments and discussion below are based on the report entitled *Additional Crossing of Clarence River at Grafton Environmental Impact Statement (RMS, August 2014)*. RMS proposes to construct a new bridge across the Clarence River at Grafton as part of the Pacific Highway upgrade works.

The new bridge will result in increased flood risk to Grafton and South Grafton unless mitigation works are undertaken. Detailed assessment of four mitigation options consisting of raising and lengthening various parts of Grafton's flood levee were assessed to determine their merit in reducing the impacts of the bridge on flooding. Two mitigation options were found to successfully reduce the impacts of the proposed project. Residual flood risk to some properties is proposed to be mitigated through house raising, with individual properties to be confirmed at a later date.

A number of improvements to the Flooding and Hydrology assessment should be made to ensure that the flood mitigation works fit logically within the context of Council's Floodplain Risk Management Plan and that the process of selecting and investigating mitigation options is robust and transparent. Discussion and recommendations regarding these improvements are provided below.

#### *Consultation*

The creation of a steering group consisting of relevant stakeholder representatives such as Clarence Valley Council (CVC), OEH, RMS, State Emergency Services (SES) and the community would involve the community early in the planning process, promote buy-in and raise issues early on thereby reducing future project delays.

#### *Relationship to Council's Floodplain Risk Management Plan*

The key issue with the proposed mitigation options is that they do not holistically consider flood mitigation in the context of CVC's future flood mitigation actions. CVC has undertaken considerable work in assessing the opportunity for increasing flood immunity by raising the levee. It is important that any works associated with the bridge do not preclude or reduce the viability of future flood mitigation work by CVC. There are also synergies that may be found through undertaking proposed CVC works and RMS works on the levee concurrently and it would be proactive to consider this during project planning.

#### *Exclusion of detailed investigation of a flood bypass*

Detailed investigation of a flood bypass between Junction Hill and North Grafton was excluded on the likelihood that the cost of the works would be prohibitive. The proposed mitigation options of raising levees and part of the Gwydir Highway is also likely to be costly however this option was investigated and adopted. OEH considers it warranted to undertake a cost benefit analysis of the flood bypass option and the raising of the levee/highway option before selecting a preferred option. The cost estimates and analysis for these flood mitigation options should be provided in the EIS.

#### *Consideration of the location, order and timing of levee overtopping*

Any changes to the levee should consider the location, order and timing for overtopping and how this relates to flood risk and evacuation planning. This consideration should include consultation with the aforementioned steering committee.

#### *Evacuation Planning*

The Flooding and Hydrology Assessment states that, evacuation routes will not change as a result of the new bridge. However the new bridge will be a major localised change to the area's traffic environment. As such the current evacuation plan should be updated to incorporate reference to the new bridge.

#### Recommendations:

1. The flood impact and mitigation component of the project should be informed by a steering committee consisting of representatives from OEH, CVC, SES, RMS, and community members. CVC's Floodplain Risk Management Committee may provide an existing group for the basis of this steering committee. Amongst other issues, the steering committee should consider the opportunity to reduce the flood risk for the Grafton and South Grafton communities for flood events greater than the 5% AEP.

2. CVC is currently considering inadequacies of the existing levee system in Grafton as part of a levee overtopping study. The design of any levee augmentation works proposed by RMS should be undertaken in consultation with CVC to ensure that:
  - a. The works align with future flood mitigation work being considered by CVC such as the location of safe overtopping points and/or the timing and locations of overtopping of the levee as floodwaters rise.
  - b. The works do not preclude or negatively impact the viability of future Council flood risk mitigation actions.
3. A new evacuation plan should be prepared in conjunction with SES that incorporates explicit reference to the new bridge and associated infrastructure.
4. The Flooding and Hydrology Assessment should provide a cost benefit analysis for potential flood mitigation works options prior to selecting a preferred option and this assessment should be included in the EIS.