



## Department of Primary Industries

OUT17/27681

Mr Caleb Ball  
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NSW Department of Planning and Environment  
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Dear Caleb

### **The Northern Road Upgrade (SSI 7127) Comment on the Environmental Impact Statement**

I refer to your email of 16 June 2017 to the Department of Primary Industries (DPI) in respect to the above matter. Comment has been sought from relevant branches of DPI. Views were also sought from NSW Department of Industry – Lands & Forestry that are now a division of the broader Department and no longer within NSW DPI. Any further referrals to DPI can be sent by email to [landuse.enquiries@dpi.nsw.gov.au](mailto:landuse.enquiries@dpi.nsw.gov.au).

DPI has reviewed the Environmental Impact Statement and provides the following comments and recommendations for consideration in assessment of the proposal. Detailed comments regarding the assessment of impacts to water resources are provided at **Attachment A**.

#### **Impacts to water resources and aquatic habitat Recommended conditions of approval**

- Works on waterfront land should be undertaken in accordance with the DPI Water Guidelines for Controlled Activities on Waterfront Land (available at <http://www.water.nsw.gov.au/water-licensing/approvals/controlled-activity>).
- Watercourse crossings over key fish habitat (as mapped by DPI Fisheries in [http://www.dpi.nsw.gov.au/\\_data/assets/pdf\\_file/0007/634354/Sydney\\_updated.pdf](http://www.dpi.nsw.gov.au/_data/assets/pdf_file/0007/634354/Sydney_updated.pdf)) should be designed and constructed to maintain fish passage, in accordance with the DPI Fisheries Policy and guidelines for fish habitat conservation and management (available at <http://www.dpi.nsw.gov.au/fishing/habitat/publications/pubs/fish-habitat-conservation>).
- The Soil and Water Management Plan should be developed in consultation with DPI Fisheries and DPI Water.
- A Vegetation Management Plan should be developed in consultation with DPI Water.
- Should any native fish need to be relocated as part of dam or stream dewatering activities, then a qualified ecologist with a relevant permit issued under section 37 of the *Fisheries Management Act 1994* must be onsite to relocate any locally occurring native fish species according to the permit conditions. There is to be no relocation of any non-native fish species.
- Mitigation measures B-10 to B-13 and SWC1 to SWC8 should be included as conditions of approval.

## Impacts to agricultural enterprises

### Comments and recommendations

- DPI supports the eastern option for the road corridor around Luddenham Village as it has relatively smaller impact on large lot agricultural premises.
- DPI recommends the conditions of approval acknowledge:
  - The actions identified in Table 7-63 (Socio-economic and land use environmental management measures) to address impacts on agribusinesses.
  - The continued consultation with landholders in regard to mitigation and compensation measures for relocation of farm infrastructure and access to agribusinesses pre and during construction.

## Management of Crown Roads

### Comments and recommendations

- There are several sections of this road for which Department of Industry – Lands & Forestry records show ownership as Shared Crown/Council Road, as follows (listed north to south, Luddenham to Bringelly):
  - Plan No: 21594-3000R (approx. 2.5 ha) for the Northern Rd between Park Rd and Purves Rd, which is south of Elizabeth Drive, Luddenham
  - Plan No: 21594-3000R (approx. 1ha) for the Northern Rd at the intersection with Park Rd
  - Plan No 14004 -3000R (approx. 1.5ha) for the section of the Northern Rd south of Eaton Rd Luddenham.
  - Plan No 14005-3000R (approx. 4.5 ha)
  - A section of the Northern Rd (approx. 3.5ha)
  - DP250961 (approx. 3 ha)
  - DP 250961 (approx. 3.5ha) for the Northern Road between the section west of Dwyer Rd and Vicar Park Lane, Bringelly
- Lands records show that sections of the Northern Rd outside the strip between Luddenham to Bringelly are managed by the Local Government Authority. Roads in shared Crown/Council ownership should preferably be transferred as necessary to one managing authority, such as Local Government.

Yours sincerely



Mitchell Isaacs  
**Director, Planning Policy & Assessment Advice**

*DPI appreciates your help to improve our advice to you. Please complete this three minute survey about the advice we have provided to you, here:*

<https://goo.gl/o8TXWz>

**The Northern Road Upgrade (SSI 7127)**  
**Comment on the Environmental Impact Statement**  
**Detailed comments regarding assessment of impacts to water resources**

**Assessment of route options**

The EIS notes the assessment of route options considered minimising potential impacts on areas of biological diversity and ecological integrity (Table 4.9, page 72). Clarification is required if the assessment considered minimising impacts on watercourses and riparian land that the project crosses.

**Riparian Corridors**

The EIS includes an Environmental Management Measure to “*avoid activities in aquatic habitats and riparian zones as much as possible*” (Table 12.4, B-10, page 751). The proponent should map the riparian corridor widths along the watercourses and identify the setbacks on the ground to implement this measure. Figures 2.1 and 2.2 in Appendix I show the stream order of the watercourses in proximity to the project. The DPI Water Guidelines for controlled activities on waterfront land (2012) identify the stream order and the associated riparian corridor widths.

Riparian land temporarily disturbed by the project should be rehabilitated following construction with native species from the relevant local native vegetation community. Where riparian land is permanently impacted by the project, riparian offsets should be provided along the relevant watercourse in the vicinity of the works.

A scaled map should be provided which identifies:

- the riparian corridor widths in proximity to the project so that these areas can be avoided where possible
- riparian areas potentially temporarily or permanently impacted by the project
- riparian offset areas.

**Waterway realignment**

The EIS notes sections of the un-named tributary of Surveyors Creek need to be realigned where it runs along the eastern side of the Northern Road near Bradley Street (Section 5.2.8, page 109). It indicates the work would involve constructing a new channel alignment including establishing natural bed and bank profiles (section 5.4.8, page 134). The realigned creek should mimic a natural creek system from the local area. A vegetated riparian corridor should be provided along either side of the realigned creek. The riparian corridor width should be consistent with the DPI Water guidelines.

**Macroinvertebrate surveys**

The EIS notes aquatic habitat assessments were undertaken over two days in February 2016 but due to the limited water availability and limited aquatic habitat macroinvertebrate surveys were deemed unnecessary (section 7.3.1, page 232). Figure 4.3 in Appendix I indicates aquatic surveys were undertaken at 5 sites and 4 of these were farm dams. The proponent should clarify why macroinvertebrate survey monitoring is not proposed along the tributaries of Blaxland Creek on the Orchard Hills Defence Establishment lands (Commonwealth land) and Badgerys Creek and Cosgroves Creek, particularly as the EIS notes that:

- the tributaries of Blaxland Creek at Orchard Hills are among the least disturbed catchments remaining in the Cumberland Plain and are regarded as possibly the most pristine creek system on Wianamatta Shale left in Western Sydney (page 316). It also outlines these tributaries are richer in aquatic macroinvertebrate genera than most other creeks of western Sydney and that the macroinvertebrate community of this catchment has a high representation of disturbance –sensitive species (Table 6.28, page 537). The EIS also indicates the scour potential along three of these tributaries would increase and ground conditions would become wetter as a result of an increase in the rate and volume of flow discharging these tributaries (page 552). While the EIS notes these impacts are not expected to extend to the aquatic areas mapped as moderate to high significance, macroinvertebrate monitoring (baseline, during and post construction) along these creeks would assist to verify that the project has not had an adverse impact.
- the project directly traverses Badgerys Creek and Cosgroves Creek (page 325) and Badgerys Creek maintains permanent residual pools (Table 7.4.1, p 293 and Table 7.50, page 326) and Cosgroves Creek at the time of inspection consisted of a series of disconnected pools. The EIS notes that natural creek lines such as Badgerys Creek at the southern end of the project would be altered (page 608).

### **Crossings**

The EIS notes existing culverts would be upgraded and enlarged to cater for increased flows (page 108). It indicates a total of 11 culverts will be installed and/or replaced at the waterway crossing locations (page 477). It is recommended the design of any upgraded and/or new culverts incorporates naturalised bases and a combination of elevated "dry" cells to encourage terrestrial movement, and recessed "wet" cells to facilitate fish passage.

The EIS notes temporary watercourse crossings may also be required for watercourses traversed by the project and if required the crossings would likely comprise a temporary causeway with culverts to maintain low flows (page 135). The EIS notes all works on waterfront land would be carried out in accordance with the DPI Water Guidelines (page 477). It is recommended this is included as an Environmental Management Measure and condition of approval.

### **Corridor along Surveyors Creek west to Commonwealth land**

Figures 7.7 and 7.8 (page 8 of 9 and page 3 of 3) in the EIS show a regional corridor along Surveyors Creek which links the Mulgoa Nature Reserve near Glenmore Park to creeks in the Orchard Hills Defence Establishment lands. The widening of the Northern Road would increase the barrier effects of the road where it bisects the corridor (page 342). It is recommended the project incorporates Environmental Management Measures to maintain and/or improve this corridor connection.

### **Sediment basins**

The EIS notes 50 temporary sediment basins are proposed to be located along the alignment (see Section 8.2.6, page 484). Figure 8.7 shows the location of the sediment basins but it does not overlay the watercourses/ stream order so it is difficult to determine if any of the basins are proposed to be located within the watercourses or riparian corridors. The proponent should clarify if any basins are proposed to be located online or within the riparian corridors. Where possible it is recommended the basins are located outside the corridors, especially where there is remnant native vegetation.

### **Water supply**

The EIS indicates the project would require up to 50 to 60 ML of water (non potable and potable) and would be sourced from existing water sources along the proposed new alignment (section 5.4.18, page 157). Clarification is required if the water supply from existing water sources only refers to the existing farm dams or if it is proposed to extract water from the local creeks.

## **Environmental Management Measures**

DPI recommends the project includes the following Environmental Management Measures:

- All works on waterfront land should be carried out in accordance with DPI Water Guidelines for controlled activities on waterfront land
- A Vegetation Management Plan should be prepared in consultation with DPI Water prior to construction commencing, including details on:
  - the riparian corridor widths along the watercourses in proximity to the project (so that these areas can be avoided where possible)
  - riparian areas potentially temporarily or permanently impacted by the project
  - the rehabilitation of riparian areas temporarily impacted
  - riparian offsets for the riparian areas permanently impacted.
- Macroinvertebrate monitoring is to be undertaken in the following areas:
  - the tributaries of Blaxland Creek at Orchard Hills to verify that the mitigation measures are mitigating potential impacts on the sensitive macroinvertebrate community of this catchment
  - upstream and downstream of Badgerys Creek and Cosgroves Creek where the project traverses these creeks.
- The proposed water quality monitoring program (SWC-2) should incorporate details on the duration of the baseline monitoring and the construction and operational water quality monitoring. It is recommended the program includes monitoring locations upstream and downstream of potential impacts. The EIS notes the monitoring program will also monitor the effectiveness of the swales (see Section 5.2.12, page 114). SWC-2 indicates the monitoring program would include the requirement to monitor the effectiveness of control measures but it is suggested it includes specific reference to monitoring the effectiveness of the swales.
- Environmental Management Measure SWC-3 to stabilise the realigned tributary of Surveyors Creek should be amended to add that:
  - the permanent stabilisation measures should consist of soft engineering solutions where reasonable and feasible and the realigned creek should mimic a natural creek system of the local area.
  - the riparian corridor along either side of the realigned creek should be rehabilitated with local native species and the width of the corridor is consistent with the DPI Water guidelines.
- Environmental Management Measure SWC-4 to construct 50 temporary sediment basins should be amended to add that:
  - the basins are to be located outside of the riparian corridors where possible. If it is necessary to locate the basins in the riparian corridor the basins should avoid disturbing remnant native vegetation.
- Topsoil (and seedbank) should be removed from native vegetation areas that are to be permanently cleared and relocated and used in the revegetation of riparian areas,
- Native plants should be transplanted from the areas to be permanently cleared to riparian land that is to be revegetated.

**END ATTACHMENT A**