



22 July 2020

Department of Planning, Industry & Environment
Industry Assessments
GPO Box 39
SYDNEY NSW 2001

Attention: Mandana Mazaheri

**SSD-9697 - BAYSWATER POWERSTATION UPRGRADE, NEW ENGLAND HIGHWAY
MUSWELLBROOK**

Transport for NSW (TfNSW) advises that legislation to dissolve Roads and Maritime Services and transfer its assets, rights and liabilities to TfNSW came into effect on 1 December 2019. It is intended that the new structure will enable TfNSW to deliver more integrated transport services across modes and better outcomes to customers and communities across NSW.

For convenience, correspondence, advice or submissions made to or by Roads and Maritime Services prior to its dissolution, are referred to in this letter as having been made to or by 'TfNSW'.

On 19 June 2020 TfNSW accepted the referral by the Department of Planning, Industry and Environment (DPIE) through the Planning Portal regarding the abovementioned application. DPIE referred the application to TfNSW for comment. This letter is a submission in response to that referral.

TfNSW's primary interests are in the road network, traffic and broader transport issues. In particular, the efficiency and safety of the classified road network, the security of property assets and the integration of land use and transport.

TfNSW have reviewed the Environmental Impact Statement (EIS) prepared by Jacobs and dated 4 June 2020 and appendices, including Appendix D - Surface Water, Groundwater and Flooding Technical Paper and Appendix J – Traffic and Transport Assessment (TTA) report.

It is understood that the proposed construction work would include:

- Augmentation of the existing Bayswater ash dam (BWAD) to provide additional ash storage capacity;
- Improvements to water management structures and systems to ensure continued collection and reuse of process water and return waters from the Bayswater ash dam;

- Improvements to the management of water and waste materials within the coal handling plant sediment basin and associated drainage system;
- Increasing coal ash recycling activities to produce up to 1,000,000 tonnes per annum of ash derived product material and reuse of coal ash;
- Upgrades to existing fly ash harvesting infrastructure including the installation of weighbridges, construction of a new 240 tonne silo, tanker wash facility and additional truck parking;
- Construction of a new coal ash pipeline to Ravensworth Void No. 3 for ash emplacement;
- Construction of a salt cake landfill facility to dispose of salt cake waste;
- Construction of up to four borrow pits to facilitate the improvements proposed for the Project and other works on AGL Macquarie land; and
- Routine clearance of vegetation along the alignments of the Lime Softening Plant (LSP) Sludge Line and High Pressure (HP) Pipeline to provide ongoing access for maintenance and management.

The operational phase of the Project would include the following activities:

- Additional ash recycling activities to reduce ash volumes requiring disposal;
- Salt cake delivery via existing internal roads; and
- Transport of borrow pit material to point of use via existing internal roads.

Following the retirement of Bayswater, decommissioning and rehabilitation works would continue for approximately five years until the works are completed.

The peak construction traffic movements related to the Project (to and from Bayswater) are expected to be approximately:

- 180 light vehicles (90 in and 90 out per day), and
- 50 heavy vehicle movements (25 in and 25 out per day).

In addition, up to 8 oversized vehicle movements would be expected for the delivery of weighbridges and the ash silo

TTA identifies the peak years of traffic generation were as 2020 to 2022. Between 2020 and 2022, the expected additional traffic generation of the Project and nearby developments is:

- 160 light vehicles to or from Bayswater during the morning and evening peak, respectively,
- 10 heavy vehicles to and from Bayswater, and
- 3 heavy vehicles to and from Liddell Power Station.

Access would continue to be from the New England Highway interchange along the main access road into Bayswater power station.

The EIS states that the proposed detailed design of the Project would involve additional flood modelling to provide for appropriate mitigation such that no significant flood impacts would eventuate.

Appendix D states that Construction of the Project elements has the potential to cause

adverse impacts on flooding if management measures are not implemented, monitored and maintained throughout the construction phase.

The flood mitigation measures proposed to address flooding risks include:

- A flood management plan will be prepared for the construction stage. The plan will consider likelihood of flooding, flood evacuation routes, warning times and potential impacts from flooding from the Project elements.
- Dam break inundation maps will be prepared utilising a two-dimensional hydraulic modelling software (eg. TUFLOW or equivalent) based on the current relevant guidelines.
- A detailed assessment of the flood handling capacity for the dam will be undertaken for each of the augmentation stages based on the current relevant guidelines and regulatory requirements. The consequence categories for each of the augmentation stages will be reassessed and inundation maps will be prepared to inform the Dam Safety Emergency Plan.
- A detailed flood study will be undertaken at the detailed design stage to confirm that the salt cake landfill facility will not encroach the floodway in the 1% AEP event.

The EIS also states that the detailed design would be subject to consequence category assessment to confirm Bayswater Ash Dam (BWAD) safety risks remain acceptable and appropriately managed.

TfNSW response & requirements

TfNSW has reviewed the referred information and provides the following comments to assist the consent authority in making a determination:

- Any approved works within the TfNSW State Road reserve (including Ravensworth Ash Line Crossings and any other utility works associated with project), TfNSW concurrence is required in accordance with Section 138 of the Roads Act (1993), as the work required affect New England Highway (H9), a classified Regional/State road.
- The likely chance of the dam fail at Pikes Creek and Chillcotts Creek, impact on New England Highway, and flood mitigation measures shall be included in detailed flood study.
Comment: Section 4.6.1 of Appendix D states "A large-scale breach from the main embankment of the BWAD would inundate the downstream area along Pikes Creek and could overtop the bridge where the New England Highway crosses Pikes Creek approximately 1.75 kilometres downstream."
The Section 4.6.1 also states that "Should a large-scale breach occur in the saddle dam wall, the inundation area would follow the natural creek line to the north, reaching the culvert at the New England Highway approximately 550 metres downstream. It is likely that ash and water would partially divert to the east and cross the highway and discharge into the Liddell Main Cooling Water Dam."
- The design of the dam and detailed flood study are required to be independently verified by Dam Safety authorities and satisfy current regulatory requirements.

- Upon completion, the detailed flood study shall be submitted to the satisfaction of TfNSW for review.

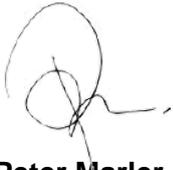
Advice to DPIE/Consent Authority

TfNSW recommends that the following matters should be considered by Council in determining this development:

- TfNSW has no proposal that requires any part of the property.
- The site has multiple common boundaries with the New England Highway which has been declared as a Controlled Access Road through this section of State Road and accordingly direct access across these common boundaries are restricted.
- Consent authority should ensure that appropriate traffic measures are in place during the construction phase of the project to minimise the impacts of construction vehicles on traffic efficiency and road safety within the vicinity.

On determination of this matter, please forward a copy to TfNSW for record and / or action purposes. Should you require further information please contact Kumar Kuruppu, Development Assessment Officer, on 0429 037 333 or by emailing development.hunter@rms.nsw.gov.au.

Yours sincerely



Peter Marler
Manager Land Use Assessment
Hunter Region