



**muswellbrook
shire council**

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28 July 2020

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Dear Ms Mazaheri,

**Bayswater Power Station Water and Other Associated Operational Works Project –
SSD 9697 – Muswellbrook Shire Council Comment**

I refer to the Environmental Impact Statement, prepared by Jacobs Group (Australia) Pty Ltd for AGL Macquarie Pty Limited ("the Proponent"), for the **Bayswater Power Station Water and Other Associated Operational Works Project** (the Project) SSD - 9697. Council appreciates the opportunity for comment.

Development for the purposes of the Project include:

- Augmentation of the existing Bayswater ash dam including water management
- upgrades
- Increasing coal ash recycling production
- Coal handling plant water management upgrades
- New Ravensworth ash pipelines
- Borrow Pits
- New Salt cake landfill facility
- Ancillary works including vegetation clearing
- Consolidation and voluntary surrender of specified existing consents.

General Comments

The proposal has flagged an issue that Council would like to raise with the State Government regarding Ocean Disposal of salt. The EIS notes that the transfer of salt to the ocean, either in liquid or solid form, isn't proposed, as investigations to date have been unable to identify any existing ocean disposal process which could lawfully take the salt. This issue applies more broadly to any intensive use in the Upper Hunter that needs to remove salt to either make water potable or to treat wastewater. Examples where this issue has been raised recently are an Abattoir proposed near Sandy Hollow and the Maxwell Underground Mine.

The Hunter River Salinity Trading Scheme is a partial solution during wet weather periods but does not benefit those who are distant from the River. The cumulative impact of not having a means to transfer salt to the ocean means:

- a) a growing number of voids, dams and pits in the landscape, containing highly saline material, which will become a legacy for future generations to manage; and

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- b) a limitation on economic activity as some potential activities may not proceed due to the difficulty faced in dealing with salt on individual development sites

This is an issue that should be addressed by the NSW State Government.

Specific Comments

Council's response to specific impacts of this proposal follows the order that issues are addressed in the EIS document:

1.0 STATUTORY ISSUES

- 1.1 As part of the Project, AGL proposes to consolidate seven existing water and wastewater development approvals into a single, contemporary planning approval. Council fully supports opportunities for consolidation and improvement of approvals for the Liddell and Bayswater Power Station sites. The new approval should include contemporary reporting, management and rehabilitation requirements.
- 1.2 The EIS does not identify that there is a s7.12 contributions plan applying to the site, with contributions calculated on Capital Investment Value of the development. Typically, developments of this scale would offer to enter into a VPA to make provision toward community facilities, the costs of employing Council staff to respond to detailed environmental planning and monitoring, and to contribute to closure and transition planning in the future.
- 1.3 At a minimum, Council requests that a condition of approval be included requiring a contribution in accordance with s7.12. An example of a typical condition is provided below:

Section 7.12 Contributions

Pursuant to section 4.17(1) of the Environmental Planning and Assessment Act 1979, and the Muswellbrook Shire Council Section 94A Development Contributions Plan 2010, a contribution of \$xxx shall be paid to Muswellbrook Shire Council.

2.0 SOILS AND CONTAMINATION

- 2.1 Highly Erodible Soils - Soils on the site are highly erodible, with low fertility, structural issues and salinity. There are several access tracks and fire trails on the site. The Project will require detailed stormwater, erosion and sediment control plans and a Rehabilitation Management Plan. All existing and proposed earthworks and structures need to be included in these plans.

3.0 BIODIVERSITY

- 3.1 The EIS fails to clearly identify which accredited Assessor takes responsibility for the Biodiversity Development Assessment Report (BDAR) and the associated BAM Calculator and surveys. Clause 6.8 of the Biodiversity Conservation Regulation sets out the minimum requirements for a BDAR which includes the requirement to include details of the accreditation of the person preparing the report and of the qualification and experience of any other person commissioned to conduct research or investigations that are relied on in preparing the report.
- 3.2 The Assessor has not certified that the BDAR was finalised within 14 days of submission/exhibition of the EIS. Section 6.15 of the BC Act requires that a BDAR cannot be submitted in connection with a relevant application unless the accredited person certifies in the report that the report has been prepared on the basis of the requirements of (and information provided under) the biodiversity assessment method as at a specified date and that date is within 14 days of the date the report is so submitted.

- 3.3 The BAM Calculator output reports indicate that the BAM Calculator has yet to be finalised.
- 3.4 The BAM Calculator output reports do not include the name or assessor number of the Assessor who completed the calculator.
- 3.5 *Aprasia parapulchella* was recorded on the nearby Maxwell Underground Mine site and needs to be considered to potentially occur on the site of the Bayswater Power Station Upgrade Project. Therefore, likelihood of occurrence is not 'low' as indicated in the BDAR.
- 3.6 The BDAR and EIS state that '*The biodiversity credit obligation for species that have been assumed present (Diuris tricolor and Prasophyllum petilum) will be reassessed following completion of targeted surveys for these species during the optimum period of detection*'. The Assessor engaged an expert to determine the habitat for *Diuris tricolor* and *Prasophyllum petilum* within the site which they did in accordance with section 6.5.2.8 of the BAM. If the Proponent wishes to undertake surveys at a later date to 'reassess' credit obligations it raises two significant questions:
- Was the BDAR incomplete when submitted; or
 - Is the EIS flagging that a post consent modification will be sought to reduce their credit obligations.
- 3.7 Council's expectation is that any modification proposing to reduce the Project's credit obligations would be accompanied by a detailed technical explanation of why the expert report did not adequately assess the population size for these species under section 6.5.2.8 of the BAM and why the Assessor still chose to submit the BDAR. If the Assessor submitted the BDAR with the intent of undertaking surveys during the exhibition/determination phase of the application, Council would argue that the Assessor has not complied with the BAM due to not submitting a complete and finalised BDAR.
- 3.8 The BDAR states that for *Diuris tricolor* and *Prasophyllum petilum* '*approximately 160 hectares of habitat will potentially be impacted*', the assessor needs to explain why this habitat will only be 'potentially' impacted.
- 3.9 The BDAR states that, regarding the EPBC Act listed Striped Legless Lizard (*Delma impar*) and *Prasophyllum* sp Wybong, they '*have been identified as species for which impacts are uncertain*'. This again highlights that the Assessor potentially does not consider the expert report and their own assumption regarding *Delma impar* habitat to be adequate. An expert report must determine what the population size is for *Prasophyllum petilum* (the same species as the EPBC Act listed *Prasophyllum* sp. Wybong) on the development site as per the BAM (6.5.2.8 of the BAM 2017) which it has done.
- 3.10 The Assessor indicates that this application will be assessed under the Bilateral agreement. Therefore, this would enable an accurate assessment of significance under the EPBC Act for these species and Council does not consider the Assessor's statement on this matter to be correct.
- 3.11 The expert report states that 'There are no validated populations of *Prasophyllum petilum* outside of the Wybong (Mangoola Coal mine) locality (c. 28 km WNW)'. This is incorrect as there is a record on Thomas Mitchell Drive.
- 3.12 It should also be noted that *Delma impar* was recorded on the nearby Maxwell Underground Mine site under 'cow pats' which is reflected in the profile for this species.

- 3.13 The BDAR is required to consider all direct and indirect impacts associated with a development that an existing consent doesn't cover (access road widening, stockpiles, laydown sites, shaping of batters etc). The 'development site' boundaries as identified in the BDAR are hard boundaries. Therefore, any impacts outside of the development site boundary will not have consent under this application, for example there is no connection between Borrow Pits 1 and 2 where they join the Ash Dam Augmentation Area. Council's expectation is that the condition of consent will require the impact boundaries nominated in the BDAR to be surveyed and demarcated before any works commence.
- 3.14 Regrading the use of the paddock tree calculator, the Assessor needs to demonstrate that the assumptions around the use of the calculator are justified. The Assessor needs to demonstrate that the native vegetation that comprises the groundcover is less than 50% cover of indigenous species, and not less than 10% of the area is covered with vegetation (whether dead or alive), and the assessment is made at the time of year when the proportion of the amount of indigenous vegetation in the area to the amount of non-indigenous vegetation in the area is likely to be at its maximum. However, the BDAR indicates that no plots or transects were conducted in the vegetation zones identified as Non-native Vegetation - Exotic Grasslands. The Assessor needs to better demonstrate that the Non-native Vegetation - Exotic Grasslands is correctly identified and that the vegetation zone meets the requirements for the use of the Paddock Tree Calculator.
- 3.15 The site does not contain statutory wildlife corridors. However, the site sits within what Council considers to be a nationally significant corridor connecting the Barrington Tops World Heritage Area and the Wollemi World Heritage Area (this corridor is the closest that these two world heritage areas come to one another). There are considerable areas of offsets within the immediate locality that help to conserve this corridor. Council requests that the Proponent indicate where they will be sourcing their credits from and that they commit to sourcing them from within the immediate locality to compensate for the impact to this corridor.
- 3.16 The BDAR needs to nominate whether the Proponent proposes to apply the variation rules for the retirement of credits as this may be conditioned.
- 3.17 The Assessor's statement that '*all areas of the Borrow Pits may not be cleared*' is noted but it doesn't have a bearing on this application. If the Proponent wishes to clear less than what was nominated in the BDAR then Council supports this. However, if the Proponent wishes to reduce their credit obligations accordingly then the applicant will need to submit a post consent modification to do so. This is complicated by the fact that the necessary credits must be retired before any work is undertaken.
- 3.18 The Proponent proposes a staged retirement of credits. The Assessor must detail the credit requirements for each element of the development and then include them as a conditional item, not '*prior to works commencing*' as indicated by the Assessor. Council's expectation is that the relevant condition will require the retirement of the necessary credits before an element of the development commences. It is not clear why this plan was not provided with the BDAR for public exhibition and again raises the question of the completeness of the BDAR.
- 3.19 The EIS does not adequately address the SEPP (Koala Habitat Protection) 2019. Parts of the development occur on land identified on the Koala Development Application Map. If the Proponent undertook surveys to determine whether the site contains Core Koala Habitat, then details on how the Draft Koala habitat Protection Guideline 2020 appendix C was addressed needs to be specifically detailed. Based

on the information provided, no SATs or nocturnal surveys etc. were undertaken on land identified on the Koala Development Application Map.

- 3.20 Where mitigation measures are proposed they must be prepared in accordance with Section 9.3 of the BAM and be included as a condition of consent. Therefore, the Assessor needs to ensure that proposed mitigation measures are consistent with the BAM and that they are presented and worded in a way that enables them to be easily integrated into a condition of consent
- 3.21 Where any waterbodies are proposed to be decommissioned and/or drained then a dam de-watering plan needs to be provided as the site contains Green and Golden Bell Frog habitat based on historical records.
- 3.22 Rather than just responding via the Response to Submissions process Council requests that the most contemporary version of the BDAR is placed on record.
- 3.23 Council would also welcome the opportunity to review the BAM Calculator for this Project as well as the provision of relevant GIS files to enable a complete review of the application.

4.0 VISUAL EFFECTS

- 4.1 The Upper Hunter suffers many amenity impacts from mines and the Power Stations. Council has consistently identified visual impact as a cumulative impact affecting the sense of place felt by the community, and the attractiveness of the Upper Hunter experienced by the travelling public.
- 4.2 It is disappointing that the EIS acknowledges this issue but, due to prior visual impacts, is almost dismissive of the visual impacts of this Project. Extracts from the EIS are provided below to demonstrate this point:

The landscape local to Bayswater is heavily influenced by industrial activity. Local land use is dominated by large-scale infrastructure associated with the Bayswater and Liddell Power Stations and opencast mining activities at Ravensworth Mine Complex, Mount Arthur Coal, Hunter Valley Operations, Liddell Coal Mine and the former Drayton Mine. Further associated land uses include the large-scale waterbodies of Lake Liddell and Plashett Reservoir which supply cooling water to Bayswater and Liddell Power Stations.

And

The baseline condition of LCU 1 has been identified as being of Poor quality - the landscape has been compromised by long term, large-scale industrial operations. Whilst remnants of the agricultural landscape remain, the immediate environs of Bayswater and the surrounding mining areas have been degraded and feature detracting features such as industrial buildings and associated infrastructure comprising above ground pipelines and electricity pylons.

And

*LCU 1 has been determined as being of **Negligible sensitivity** as the landscape does not display inherent, unique features and is generally of low quality and has been damaged by industrial development/ activity and infrequent/ uncoordinated management.*

And

There are no New England Highway stopping points or lay-bys that would be afforded views of the proposed changes, therefore potential views would be limited to oblique, glimpse views from moving vehicles travelling at speed in either direction within the road corridor. Potential views towards the new landform would

be filtered by landform and vegetation and would likely visually merge with the existing, modified landscape associated with Bayswater, mining operations and the highway. It is unlikely that the change would be discernible within any potential glimpse, filtered, oblique views from the highway.

- 4.3 Around the year 2035 it is anticipated that both the Bayswater and Liddell Power Stations will be decommissioned, and the sites will be available for other employment generating activities. Every effort needs to be made to ensure that activities that are approved today do not become a negative legacy that inhibits new uses.
- 4.4 The EIS states that the height of the BWAD wall will be increased by 11.5 metres and will be the most visually prominent element of the Project. Unfortunately, there is only a simple sketch providing one cross-section, on page 59 of the EIS, that can be used to gauge the extent of proposed works. From that sketch it is not clear how much alteration to the existing wall is proposed. To increase the wall height by 11.5m would normally require an increase in the width of the wall as well.
- 4.5 If the wall is being altered significantly it would be an ideal time to introduce a more natural landform style (e.g. as designed by GeoFluv). This is now the standard for construction of overburden emplacement areas in open cut mines. The provision of landscaping for the full frontage of the BWAD wall, and on the wall itself would also lessen visual impact.
- 4.6 Council requests that conditions be included that require:
- The BWAD wall and any other new landform structures to be constructed in a manner that is safe, stable and non-polluting;
 - Final landforms are designed to incorporate natural micro-relief and natural drainage lines; and
 - Restoration of self-sustaining ecosystems, including establishing:
 - Screen plantings installed at sufficient density to assist with landscaping the BWAD wall and other Project components from the New England Highway and internal sealed roads.
 - Requiring criteria for screen planting that will result in a canopy density, measured from ground level to a height of 8m above ground level, of 60% (alternatively expressed as a leaf to air gap ratio of 2:1) with a mix of ground cover, mid-storey and canopy producing plants.

5.0 WASTE

- 5.1 The Project includes an increase in current coal ash recycling activities from Bayswater to enable reuse of up to 1,000,000 tonnes per annum of ash during periods of peak demand. Council supports the proposed coal ash recycling activities as a mechanism to reduce:
- disposal of waste on site; and
 - consumption of raw materials and resources.

6.0 MANAGEMENT AND MONITORING

- 6.1 The Surface Water, Groundwater and Flooding Technical Paper (Appendix D of the EIS) discusses possible issues that may arise if the leachate liner for the salt cake landfill leaks, there is higher than expected levels of seepage from the Ash dam or the ash pipelines break etc. There is regular low-level seismic activity (generally measuring less than 4 on the Richter scale) in the Muswellbrook LGA with epicentres predominantly near Mt Arthur mine, which is close to Bayswater Power Station. On

average there are two events/month. All liners and structures should be designed to withstand this regular seismic activity, and an inspection regime must be in place for infrastructure following notification by Geosciences Australia that a seismic event has been recorded in the Muswellbrook LGA or the northern half of the Singleton LGA.

- 6.2 Salinity Discharge Sites - The locality has high expressions of salinity in riparian areas and has a number of off-stream, dryland salinity discharge sites. Works to manage discharged sites should be included, but not be limited to:

- Exclusion fencing and maybe selective grazing
- Salt tolerant plantings both groundcover and woody vegetation
- Earthworks for water diversion
- Intercept planting
- Fertiliser- nutrient and structural soil improvements

7.0 REHABILITATION AND CLOSURE

- 7.1 The local community is dependent on the Power Stations for positive impacts on the local economy. The impact of closure on local and even regional socio-economics may be significant and should be a key consideration in closure planning processes and documents. At the close of Bayswater's operations every effort should be made to maintain the quantum of employment opportunities, in turn avoiding economic and social disruption to the local community through loss of job opportunities. Land use opportunities for the site could include:

- Recreational uses
- Hydropower and other renewable energy generation activities
- Tourism and Theme parks
- Wildlife habitat and conservation
- Water storage and irrigation
- Intensive Agriculture / Aquaculture
- Industrial Development

- 7.2 A contemporary condition of consent should be included to require planning for the transition of the site to a post-coal fired power generating future, and that this planning begin at least 5 years prior to the closure and decommissioning of the Power Station.

- 7.3 A working party, with participants from Muswellbrook Shire Council, DPIE, Premiers and Cabinet, Maxwell Ventures (Management) P/L, Muswellbrook Chamber of Commerce, traditional owners and local land council members and the Hunter JO Economic Transitions Committee, should be established by the year 2030 to commence planning for the transition to post-coal fired power generating uses for the site.

- 7.4 Rehabilitation – The EIS considers rehabilitation as follows:

Once the Borrow Pits are stabilised, the final landform would be designed to be free draining so that they do not form permanent water bodies. Further details on the proposed water management and drainage structures would be developed as part of the detailed design.

The Bayswater Ash Dam Augmentation Design Report (Aurecon, 2019) provides a number of options and a recommended concept schematic for the rehabilitation of the site. This rehabilitation option is a basic rehabilitation that conforms with the industry standard approach of:

- *Capping ash surfaces with an appropriately low permeability layer (minimum 500 mm thick)*
- *Provision of adequate cross fall over capped surfaces to avoid ponding above ash deposits*
- *Grading of the dam and storage to remove the dam walls ability to detain a 'free' water pond*
- *Upgrade of flood spillways to enable safe discharge of the Probable Maximum Flood event and*
- *Provision of a growth medium to allow for light vegetation that would assist in the prevention of erosion.*

- 7.5 Decommissioning Requirement – Any new approval must include contemporary conditions regarding decommissioning and rehabilitation. Council requests that any condition require:

A Decommissioning and Rehabilitation Plan to be prepared within 3 years after the date approval, in consultation with Council. This plan must:


- (a) Explain whether the works permitted are still actively used or whether they are or will likely become redundant;
- (b) Identify whether the works permitted require replacement or are otherwise intended to be replaced by other infrastructure;
- (c) Nominate the date by which the works permitted by the approval will be removed and the site rehabilitated; and
- (d) Detail how the site will be rehabilitated.

- 7.7 The Decommissioning and Rehabilitation Plan should be reviewed every 3 years, and, if necessary, amended. Any revised Plan should be prepared with input from Council.

- 7.8 Any approval should require the approved Decommissioning and Rehabilitation Plan to be implemented following the decommissioning of Bayswater Power Station at its planned end of life (currently 2035).

Council appreciates the opportunity to comment and would be pleased to provide additional information if requested.

Yours faithfully



Fiona Plesman
GENERAL MANAGER