

Submission to Minister for Planning

Date 26 June 2017

Development Applicant Hume Coal Pty Ltd

Development Application Hume Coal Project SSD7172

Environmental Impact Statement exhibition: 31 March 2017

By Robert Gordon Castle and Josephine Armored Castle of 393 Medway Road,
Medway

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1. Background

- 1.1 This Submission is made jointly by Robert Gordon Castle and Josephine Armored Castle, as owners of the property at 393 Medway Road, Medway (**'the Property'**). This Submission is in objection to the Environmental Impact Statement (**EIS**) lodged by Hume Coal Pty Limited (**'Hume Coal'**) on 31 March 2017, for their proposed development, known as the Hume Coal Project (**'the Project'**).
- 1.2 Hume Coal is a wholly-owned subsidiary of POSCO Australia, a subsidiary of POSCO. The Project seeks to construct and operate an underground coal mine that will produce metallurgical coal with a secondary thermal coal product (EMM Consulting Pty Ltd, *Hume Coal Project Environmental Impact Statement* ('EIS'), 2017, ES.1). The coal will be transported by rail to Port Kembla Coal Terminal for export, with coal train loading facilities operating 24/7. The construction of the new rail line is part of a separate development application, the Berrima Rail Project SSD7171 (**'the Rail Project'**). The Project is proposed to last for 23 years (EIS, ES.4). For the reasons set out below we object to both the Project and the Rail Project
- 1.3 The Project area is identified in Figure ES2 of the EIS. The Property is on the border of the Project, in close proximity to both the proposed mine and rail upgrade sites. A copy of the location of the Property in relation to the Project is provided as **'Attachment A.'**
- 1.4 The Property is 90 acres, 80 acres of that being cleared, of pastureland with a house and extensive equestrian facilities that include an indoor dressage arena, stables and barns. The land is used for livestock, primarily horses and cattle. Water for the livestock and for ourselves, the residents of the Property, is sourced from a number of bores.

2. Legislation

- 2.1 The EIS is made pursuant to Part 4, Division 4.1 of the *Environmental Planning and Assessment Act 1979* (NSW) (**'EPA Act'**).
- 2.2 Section 5 of the EPA Act provides the objectives of this legislation, which includes a range of factors that include the following:
 - (a) *Encourage:*
 - (i) *Proper management, development and conservation of natural and artificial resources including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment;*
 - (vii) *Ecologically sustainable development; and*
 - (viii) *The provision and maintenance of affordable housing.*
 - (c) *To provide increased opportunity for public involvement and participation in environmental planning and assessment*
- 2.3 Hume Coal identifies the Project as a State significant development. Section 89E of the EPA Act provides:
 - 1) *The Minister is to determine a development application in respect of State significant development by:*
 - a) *Granting consent to the application with such modification of the proposed development or on such conditions as the Minister may determine, or*

b) Refusing consent to the application

- 2.4 Pursuant to section 89H of the EPA Act, in determining a development application for a State Significant development, section 79C of the EPA Act applies. Section 79C provides a list of matters a consent authority is to take into consideration when determining a development application including:

...

- (b) The likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality;*
- (c) The suitability of the site for the development;*
- (d) Any submissions made in accordance with this Act or the regulations; and*
- (e) The public interest.*

- 2.5 Accordingly, this Submission is made in objection to the proposed development, the Project and the Rail Project, as outlined in the EIS. We submit the Minister should consider section 79C of the EPA Act in line with the objectives of the EPA Act outlined in section 5 and reject the proposed development. In particular:

- (a) the Project and the Rail Project are not ecologically sustainable developments,
- (b) the Project and the Rail Project will prevent the conservation of natural resources including agricultural land, water and the surrounding heritage town regions;
- (c) this in turn will impact the maintenance of affordable housing; and
- (d) the Project and the Rail Project are contrary to the public interest of the local stakeholders.

- 2.6 We make this Submission in respect to the Property, in particular the following issues are of concern for us as local landholders if the Project and the Rail Project were to be approved:

- (a) the significant drawdown of existing water tables;
- (b) coal dust impacting the air quality due to the coal stockpiles;
- (c) noise and vibration of the Project construction and the proposed rail loop;
- (d) visual amenity impacted by the Project and Rail Project; and
- (e) a negative impact on the market value of the Property.

3. Drawdown of water table

- 3.1 The EIS identifies drawdown as a key impact of the Project on the surrounding area. It is identified as 'the highest possible risk to agriculture' due to the 'potential loss of groundwater' (EIS, ES.9). The Property relies on water from bores for its agricultural and domestic viability. The Property has a water licence, (Licence WAL24815) that has a share component with the Sydney Basin Nepean Groundwater Source. The Project has acknowledged it will source its water primarily from groundwater systems, and the main inflow of 99.4% is stated to be sourced from the Nepean Management Zone 1 (Table 7.12). This is a significant amount that will impact our ability to access water and sustain our livestock on the Property.
- 3.2 The EIS states that groundwater will flow into the mine for approximately 22 years, which will cause a significant drawdown on the water table in the Nepean Groundwater Zone. The EIS estimates this drawdown will impact 93 private landholder bores on 71 properties, reducing the bores by 2 metres or more (EIS, ES.7). However this drawdown has been acknowledged

by Hume Coal as being significantly larger than predicted. The EIS predicts that a maximum total drawdown, for 109 landholder bores, will be between 2 metres and 84 metres (p178). This is a large and uncertain scale. An independent water study that was peer reviewed by the Water Research Laboratory at the University of New South Wales has estimated that groundwater will be lowered by up to 150 metres (Southern Highlands Coal Action Group, 'Hume Project: Sutton Forest Coal Exploration Licence EL 349' April 2014, 1).

- 3.3 In particular, 87% of this estimated drawdown is predicted and acknowledged to be a result of the Project (EIS, 178). By way of example, the EIS states that during construction, approximately 90ML/yr will be required and used primarily for dust suppression, which will be sourced from existing registered bores (EIS, 32).
- 3.4 The estimated duration of the drawdown is an average of 36 years, and a maximum of 65 years (EIS, ES.7). It is also estimated that an average recovery of the bore levels to 75% will be within 23 years *after* the initial impact (EIS, 178). This is a significant impact in both depth and time, particularly where the Property relies primarily on bores for agricultural and domestic use.
- 3.5 The mitigation and management response to the above is to 'consider if additional make good measures should apply to the bore to maintain existing water supply' (EIS, 188). As this is the livelihood and main water source of the Property, mere 'considering' does not appear to be an ample and suitable response.
- 3.6 The uncertain range of impact on the bores, the sourcing of water primarily from the Nepean Management Zone, which is part of our water licence, WAL24815, the length of the project and recovery of water levels and the inadequate evaluation of 'make good' assessments are submitted as key considerations in the Minister's evaluation. In particular, this demonstrates a negative impact of the Project on the ecological sustainability and the conservation of natural resources on both the Property and in the region more broadly.

4. Coal dust and air quality

- 4.1 The Project proposes to use above ground soil and coal stockpiles. As the Property is in close proximity with both the border of the Project area, and the proposed stockpile, this is alarming to us, particularly regarding the health implications this may have on the Property and is one of our primary objections to the development application. The development application should be rejected on this basis alone.

- 4.2 The EIS acknowledges that two key contributors to a potential source of total suspended particulates, PM10 and PM2.5 (dust) emissions are:

- (a) wind erosion from coal stockpiles and wind erosion; and
- (b) coal transfer emissions from conveyor belt and transfer stations (EIS, ES4.7, ES.11).

According to the Department of Environment and Energy, PM10 and PM2.5 are particles that can be 'drawn deep into the lungs' (Department of the Environment and Energy, *National Pollutant Inventory*, 2017). Approval of the Project would be likely to have significant detrimental health consequences for us and other nearby residents.

- 4.3 Topsoil stockpiles are estimated to be a height of "3 metres or less", while subsoil stockpiles 'may be over 3 metres high' (EIS, 8.4.3, 208). We note that there is no limit provided to the height of subsoil stockpiles and there is a proposed six-storey high, 800 metre long coal stockpile that will be in close proximity to the boundary of the Property.

- 4.4 Wind direction is identified as westerly, and the Property is north-west of the Project. The risk of the Property being impacted from coal dust emissions being blown from the stockpiles is high. The EIS states that 'emissions from stockpile wind erosion...will be the most dominant sources of particular matter' and that 'surface storage' will 'unlikely' be needed by the time peak ROM coal extraction is reached (EIS, 12.4ii, 328). This is not a definitive answer that above ground stockpiles will be removed, nor is an estimate time frame provided for when 'peak ROM coal extraction' is to be maintained.
- 4.5 Given the proximity of the Property to this stockpile, the health impacts from airborne dust contamination is a serious issue and one that is not adequately addressed. The Property land is used, as mentioned above at paragraph 1.3, for livestock including horses and cattle. The EIS acknowledges that horse farms in the area have become more common in the past 30 years, but does not expand or evaluate the impact of coal dust or air quality on the agricultural livestock (EIS, 9.3.1, 215). We are concerned of the impact the coal dust emissions will have not only on ourselves, but also on our livestock, and this has not been satisfactorily addressed in the EIS.
- 4.6 Mitigation measures provided in the EIS also do not appear sufficient or certain. The two measures to prevent wind erosion from stockpiles are automated water sprays and veneering. We note that the 'control efficiency' of water sprays is between 50% to 80% (EIS, 328). A control of 50% does not subdue the impact of dust emissions on the livestock and individuals on the Property. Further, this mitigation measure will increase the water use of the Project and consequently the drawdown of the bores on the Property, as mentioned in paragraph 3.2 above.
- 4.7 The uncertain length of use of the aboveground stockpiles, the impact this will have on the air quality and health of the surrounding agriculture, livestock and individuals are all reasons to reject the EIS and development application. Further, the mitigation measure of water sprays has a minimum 50% reduction of dust emission, an inadequate solution particularly when the source of this mitigation measure will result in further drawdowns on surrounding bores, an issue highlighted in part 3 above.

5. Noise and vibration

- 5.1 The Property is in close proximity to the border of the Project and will be located approximately 1200 metres from the proposed Rail Project. The noise and vibration impacts of both the Project and the Rail Project are likely to have a significant negative impact on the Property, and the residents and livestock living there. While the EIS has attempted to measure the noise level of the Project and Rail Project, with a conclusion that the increase does not exceed the noise management level, it does not include a combined evaluation of the noise and vibration of both projects. Without a combined estimate of the noise and vibration impacts of both projects, it is difficult for ourselves, the other surrounding local landowners and the consent authority to evaluate the impact.
- 5.2 There is also no clear mitigation measure in place for the noise or vibration impacts of either the Project or the Rail Project. The mitigation measures for vibration impacts from the Project include preparing a vibration management plan that *describes* approved hours of work, the work practices to minimise vibration, complaints handling process and monitoring nearby residences (EIS, 11.5.3, 313). The EIS also states it will develop a noise management plan for the operational noise of the project, which will 'outline mitigation measures to achieve the noise limits established.' (EIS, 11.5.1, 311). These are vague measures that are difficult to be quantified at this assessment stage, and which we submit are likely to be inadequate.

6. Visual amenity

- 6.1 The stockpile is proposed to be situated in a close proximity to the Property, as is the Rail Project. This would negatively impact the visual amenity of the Property which in turn may make it difficult to sell the Property and potentially lower its market value. Hume Coal acknowledges in the EIS that there will be noticeable changes from certain viewpoints, particularly from Medway Road where the Property is located. Two viewpoints on Medway Road have the 'potential to experience a moderate to high visual impact from the project' (EIS, 416).
- 6.2 In response, Hume Coal have stated in the EIS that they have planted 'tree screens' around the Project and that there is 'sufficient time for some species to reach maturity...by the time construction commences' (EIS, 16.5.1, p413). According to Figure 16.11 of the EIS the tree screen does not appear to have been implemented on the border of the Property and the Project. Further, the species of trees planted vary in age to maturity ranging from 5-7 years, to 15 years. Over half of the species planted will take or exceed 10 years to mature, which is almost half the lifespan of the Project (EIS, Table 16.5, 415). There is also no method of identifying which species have been planted where along the border (EIS, Table 16.5, 415). In any event, we do not accept that a 'tree screen' would adequately address the loss of visual amenity which the Project and the Rail Project would cause to the Property.
- 6.3 As the Property is in close proximity to both the Project and Rail Project, we submit that the mitigation measures to counter the visual amenity of the combined projects are not in the appropriate area to cover the Property, nor is there appropriate information to identify whether the species of the tree screen will mature in an adequate time. The mitigation measures to combat the issue of visual amenity are inadequate and do not address the concerns of the surrounding landholders, including ourselves.

7. Market value

- 7.1 As mentioned above at paragraph 1.2, the Project has an estimate lifespan of 23 years. Our submission has raised the following issues regarding the Project:
- (a) the drawdown of water bores,
 - (b) dust and wind erosion from stock piles,
 - (c) possible combined noise and vibration of both the Project and Rail Project; and
 - (d) inadequate mitigation measures to combat the visual amenity of both projects.
- Over the span of 23 years, the accumulated effect of the above concerns are likely to detrimentally impact the market value of the Property.
- 7.2 Additionally, the social impacts the Project will have on the region are also likely to reduce both the market value and the liveability of the area. Table 20.13 of the EIS indicates negative and direct impacts of the Project to include:
- (a) a loss of connection to rural environment as a result of the changing landscape character;
 - (b) reduced social cohesion due to rapid population growth; and
 - (c) impact on the character and amenity of the area due to land use changes;
- Further, traffic increases and displacement of existing agricultural activities have both been identified as occurring due to the Project (EIS, Table 15.10, 386; 19.3.6(e), 463).

7.3 It is submitted that the combined detrimental impact of the drawdown of water tables, wind erosion from stockpiles, noise and vibration from both projects, visual amenity and loss of agricultural activities and character will have a combined effect of reducing the market value and liveability of the region. It is also likely to very significantly detract from the Southern Highland's current status as one of the top domestic and international tourism destinations in NSW.

7.4 The economic benefits, and importantly detriments, to local landholders have not been estimated in the EIS, apparently on the basis that 'the net benefit accruing to landholders is insignificant relative to the overall net benefit to NSW generated by the project' (EIS, 19.3.8, 465). This justification to ignore the impacts on the local landholders is strongly opposed. Consideration of a development application includes the public interest, as outlined in paragraph 2.4 above. It is submitted that the public interest includes the landholders and local stakeholders, which we are a part of, and we accordingly strongly oppose the development application both in respect of the Project and the Rail Project.

8. Conclusion

8.1 We submit that the Project and the Rail Project are not ecologically sustainable, prevent natural conservation of resources such as water and agricultural land and are detrimental to the public interest of local landholders and stakeholders.

8.2 The Project will have a detrimental impact on the Property in the following ways:

- (a) Severe reduction of the water tables and bores which the Property heavily relies upon;
- (b) Reduced air quality and possible health impacts due to the dust emissions from the nearby coal stockpile;
- (c) The combined noise and vibration impact of the Project and the Rail Project;
- (d) A diminished visual amenity from the Property; and
- (e) A reduction in the market value of the Property due to the above factors and a decline in the ecological, agricultural and cultural character of the region.

8.3 Accordingly, we submit that the Minister should refuse consent to the development application pursuant to section 89E(1)(b) of the EPA Act.

Robert Gordon Castle

Josephine Armored Castle