

25 October 2018

Executive Director Resource Assessments
Mr David Kitto
NSW Department of Planning and Environment
GPO Box 39
Sydney NSW 2001

Electronically: online submission form

Vickery Coal Mine – Vickery Extension Project

Dear Mr Kitto,

Background

Cotton Australia is the key representative body for Australia's cotton growing industry, supporting about 1,200 cotton farming families in NSW, Queensland and now into Victoria. Our members represent 152 Australian regional communities who use 263,339 hectares of their land holdings to grow cotton, producing around 2.7 million bales. In 2015/16 the Australian cotton crop was worth \$1.3 billion and employed on average 10,000 people. NSW production is a significant share of this pie, with an estimated \$1.403m gross value of production in 2016-17 and the cotton lint alone generating an export value \$593 million.

Cotton Australia has also worked closely with members and other landholders affected by the Vickery Extension Project, we understand they will be making submissions that seek its refusal. Cotton Australia recognises and supports these landholders' position and take this opportunity to highlight issues that we see as concerns.

Executive Summary

The issues facing cotton growers are:

- Key elements of The Vickery Extension Project represent significant development creep.
- There is a concerning lack of detail about the rail spur and its construction, as well as the accumulated impact this structure will have by traversing the floodplain.
- The Social Impact Survey does not consider the noise, light and sound impacts caused by the coal handling and preparation plant, CHPP, operating for 24 hours.
- There is no consideration of the impact of coal dust on crops, particularly cotton which is grown on adjoining farms and the crop's value is determined by its physical attributes, including whiteness.
- Sufficient regard has not been given to minimising the risks of a large scale rain event upstream from the Vickery Mine and extension, in terms of the health and productivity of the agricultural land, restrictions on the community's recreation, to say nothing of the physical health and safety implications for the community.
- Regarding the mine's rehabilitation, sufficient length needs to be given to the amount of time in which regulatory compliance is in play as plant and hence ecological establishment is not instantaneous.

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Cotton Australia recommends:

- The Social Impact Survey be amended to include changes in night time light levels plus the resulting noise of the facility operating and being serviced, whether by road or rail.
- The EIS consider the impacts of dust on both the general amenity, the community and the agricultural enterprises adjacent to The Project and also downstream.
- The flood modelling be revised to include:
 - the accumulative impacts of the rail spur and associated structures being added to the flood plain, and also
 - the risks posed by a large scale rain event upstream from the Vickery Mine and extension.
- The community are given the opportunity to have input into the final form and use of the rehabilitated landscape, for both the approved Mine and also all features of the Vickery Extension Project.

Introduction

We do not typically get involved in locally based issues as we take a position that we only represent the broad concerns of growers. However we believe that the Vickery Extension Project (The Project) has much broader implications for our growers due to the proximity of the development to prime agricultural lands and high quality water resources. Also that key elements of The Project represent significant development creep:

- Regardless of the Blue Vale Pit being struck from the project, the overall excavation activity is still located adjacent to the Namoi River and its flood plain.
- The area of land from which coal is to be excavated is expanded, a portion of which brings it closer to the Naomi River.
- The coal processing activities to be conducted on site by the coal handling and preparation plant, CHPP, would increase because material from all other Whitehaven mines is to be directed the Vickery site. As indicated by the EIS documentation this will occur for an estimated 12 of the 25 years of the mine's life.
- The coal stockpiled for washing or transport will be even closer to the Namoi River and floodplain than the mine area.
- The rail spur is being created to transport the coal instead of roads being used, and it will transverse both the river and floodplain.

General observations:

Cotton Australia considers that the protection and sustainability of land and water resources and enhancement and maintenance of landholder land access rights is of utmost importance.

While we recognise that the mining industry offers potential economic benefits to Australia, without proper regulation and enforcement the mining industry also poses significant risks to the Australian cotton industry. Specific to mining our long-held policy principles include:

- Protecting the productive capacity of agricultural land from mining extraction activities.
- Opposing any mining development unless and until it can be definitively proven, that the development will have no impact on the productive capacity of the land.
- That any existing or approved mines are rehabilitated to their pre-development productive capacity, within five years of ceasing production. That these activities follow a comprehensive rehabilitation plan, with clear and enforceable timeframes.

It is in light of these Cotton Australia policy principles that our concerns lie, some examples are as follows:

Rail spur and truck/cart movements:

- **Flooding**

There is a concerning lack of detail about the rail spur and its construction. Statements simply indicate that it will be built to engineering standards and in a manner to enable flood water passage underneath such as: “appropriately sized culverts”.

However there is no consideration about this being an additional structure on the floodplain despite the map on p11 of Appendix C clearly indicating that southern portion of mine infrastructure and the rail spur are located in the Flood Storage and Secondary Flood Discharge – Upper Liverpool Plains.

As the spur crossing would be the third transport corridor to traverse the floodplain from a mine, Maules Creek road and rail bridges being the others downstream, surely the accumulated (knock on) impacts that will have on flood waters across the landscape should be considered by the EIS. So too the impacts on existing structures like the road and rail line crossings downstream.

Cotton Australia recommends the flood modelling be revised to include the accumulative impacts of the rail spur and associated structures being added to the flood plain.

- **Noise and light pollution**

The approved mine’s consent has windows of time permitting the transport of coal but no road or rail spur:

“The Applicant shall only transport coal from the site or receive coal reject from the Whitehaven CHPP between the hours of: (a) 6 am to 9.15 pm Monday to Friday; (b) 7 am to 5.15 pm Saturday; and (c) at no time on Sundays or Public Holidays.” [Development Consent 2014 - Schedule 2 Administrative Conditions: Coal Transport point 9, page 6]¹

Regardless of a supposed cap of 16 train movements a day, The Project’s current configuration is based on the CCHP operating for 24hrs. The CCHP will require sufficient lighting to ensure safe operation in an area currently dark at night, in turn introducing a level of noise, light and sounds not currently present in the landscape.

In Cotton Australia’s view the changes in night time light levels plus the resulting noise of the facility operating and being serviced, whether by road or rail, would be of sufficient note to be canvassed by the Social Impact Survey. However they are not.

Cotton Australia recommends the Social Impact Survey be amended to include changes in night time light levels plus the resulting noise of the facility operating and being serviced, whether by road or rail.

¹ <https://majorprojects.accelo.com/public/cf17a2f6abb507273e3f9c83b801f3f1/Vickery%20Coal%20Project%20-%20Development%20Consent.pdf>

- Coal dust

The farm land adjacent to the Naomi River and through which the rail spur traverses is used to grow cotton. The EIS considers dust impacts and also the impacts of coal dust for grazing cattle but not crops.

Cotton lint is classed and priced according to its physical attributes that affect the quality of the finished product and/or manufacturing efficiency. Australia uses the US Department of Agriculture developed classing system and includes whiteness (colour grade, reflectance and yellowness), fibre length, uniformity of length, strength, fineness plus content of leaves, sticks etc. Hence coal dust poses a potential risk to the quality and attributes that the harvested cotton displays, consequently impacting the grower's return.

In 2016-17 the NSW cotton lint generated an export value \$593 million and according to the 2017 CRDC cotton growing practices survey, the north west NSW region (Lower - Upper Naomi, Gwydir and Bourke areas) was responsible for or 40% of the area planted (6505 hectares)². Also that the region's average yield ranged between 0.97/bales (rain grown) and 9.88/ha (fully irrigated) per hectare. For both the 2016-17 and 2015-16 surveys, colour was one of top three (length and leaf the others) most common causes of quality downgrades.

Cotton Australia recommends the EIS consider the impacts of dust on both the general amenity, the community and the agricultural enterprises adjacent to The Project and also downstream.

Flood preparedness

The construction of the rail spur results in seven of the 17 existing dwellings being on the west side (downstream) of the rail spur. According to the modelling used in Appendix C the predicted flood level change (Figure 6.10) indicates that two locations will see greatest changes to flooding, effectively sandwiching these seven dwellings. To reiterate the location of the two areas subject to the greatest flood level change, according to the modelling used, are the weakest points at time of flood.

Cotton Australia would draw the Department's attention to the disastrous flooding event that occurred at the Ensham Mine in Queensland during 2008. The mine's six pits were filled to 15 metres with more than 100,000 megalitres of water when the levee banks on the Nogoa River failed. This submerged the dragline and took four months to decant the water which was pumped into the river. During that time health warnings were issued to downstream communities due to pollution concerns³.

With the changing climate reliable modelling such as the *NSW and ACT Regional Climate Modelling (NARClIM) Project*⁴ indicates the frequency and veracity of storm effects will change, not just temperature and dry spells. Consequently these projections suggest the volume of what is currently considered a large rain event, such as the magnitude of a 1 in 50 year or a 1 in 100 year, will occur more frequently and possibly in a shorter period of time.

In the case of Ensham, the modelling used to calculate the required bunding didn't foresee such events. Post flooding the mine's owner installed levee banks to withstand a one-in-1,000 year flood.

² Cotton Research & Development Corp (CRDC) Grower Survey 2017 available at: <https://www.crdc.com.au/publications/growersurvey>

³ The Qld EPA initiated a weekly update on "Fitzroy River System Water Quality Management" which went from 20 October to 15 December 2008, cited in Fitzroy River Basin Effects of Ensham Mine Water on Fish 2008-09 Bill Sawynok and Wendi Parsons Infofish Services Report to Ensham Resources September 2009 <http://infofishaustralia.com.au/wp-content/uploads/2016/11/Ensham-Water-and-Fish-report-2008-09.pdf>

⁴ <https://climatechange.environment.nsw.gov.au/Climate-projections-for-NSW/Climate-projections-for-your-region>

Cotton Australia is therefore concerned that sufficient regard has not been given to minimising the risks of a large scale rain event upstream from the Vickery Mine and extension. Should such an event occur it would have disastrous consequences at those two weakest points on the rail spur. So too the CCHP, the stockpiled coal and the infrastructure located in an areas already identified as being affected by South Creek flooding.



The Nogoia river floods the Ensham mine. January 2007. ⁵

These risks and their mitigation need to be reflected the EIS because the impacts would be felt not only by the seven dwellings immediately located nearby the spur. The health and productivity of the agricultural land⁶ would be deleteriously impacted, as well as restrict the community's recreation, to say nothing of the physical health and safety implications for the community.

Cotton Australia recommends the flood modelling be revised to include the risks posed by a large scale rain event upstream from the Vickery Mine and extension.

⁵ Source: ABC Capricornia 2 May 2008 <http://www.abc.net.au/local/stories/2008/05/02/2233953.htm>

⁶ 2017 CRDC cotton growing practices survey, the NW region (Lower - Upper Naomi, Gwydir and Bourke areas) was responsible for or 40% of the area planted (6505 hectares) in NSW.

End of life of the mine:

- Final voids

In Cotton Australia's view:

- Final voids are not the default option for a project and are only permissible when the ecological sustainable development benefits can be demonstrated.
- When it has been agricultural land that the mine has disturbed, the land should be fully restored to its former agricultural quality. This is in terms of quality of soil, landform and catchment hydrology, including surface and ground waters. Tools currently exist that can be used to assess groundwater ecosystem health before, during and after a mine project. For example the Groundwater Health Index developed by Dr Kathryn Korbel of Macquarie University's Department of Biological Sciences and Cotton Research and Development Corporation⁷.

- Scheduling of rehabilitation activities

It is noted that the EIS proposed rehabilitation is to occur progressively and over the life of the mine, also that the Mining Operations Plan (MOP) will outline how Whitehaven will ensure the stockpiled top soil is managed and reinstated.

It is therefore unfortunate that until the MOP is drafted, it will not be clear whether the area will be restored to the standard of its former agricultural quality.

Cotton Australia recommends sufficient length needs to be given to the amount of time in which regulatory compliance is in play as plant and hence ecological establishment is not instantaneous. (E.g. time to investigate, repair and confirm works are sufficient to have restored the broader landscape.)

- Decommissioning the rail and road corridors

The EIS leaves open what will happen to the rail spur and its surrounding corridor post mine use. At best, in referring to the 'Mine Infrastructure Area and Southern Part of Secondary Infrastructure Area' there are statements made suggesting how much infrastructure is removed from this precinct could be up for negotiation. For example:

Infrastructure would be removed at the end of the Project life, unless otherwise agreed with the relevant government agencies and landholders (e.g. concrete hardstands, site access roads, sheds, buildings and sediment dams may provide for alternate post-mining uses).⁸

Cotton Australia recommends the community are given the opportunity to have input into the final form and use of the rehabilitated landscape, for both the approved Mine and also all features of the Extension Project.

⁷ More details about this tool is available from https://www.researchgate.net/publication/312452217_The_weighted_groundwater_health_index_Improving_the_monitoring_and_management_of_groundwater_resources and also http://www.crdc.com.au/sites/default/files/pdf/Summer18_sc2.pdf

⁸ (Section 5 Rehabilitation Strategy, Domain 3B Mine Infrastructure Area p5-18)

Conclusion

Cotton Australia is still in the process of reviewing the EIS documentation and may wish to make a supplementary submission at a later date. We would welcome the opportunity to discuss our concerns with the Department. For more information, submission please do not hesitate to contact Jennifer Brown, Policy Officer, on 02 9669 5222 or jenniferb@cotton.org.au.

Yours sincerely,



Michael Murray,
General Manager
Cotton Australia