My name is Catherine Dangar and I live with my husband at Exeter. My husband and I acquired the property in October 2016 and moved to Exeter in the Southern Highlands around 7 months ago. Our property is approximately 8 hectares of farmland, located to the east of the proposed Hume Coal mine and close to the historic town of Bundanoon. The property has several natural watercourses and a spring servicing 4 dams.

The Hume Project is for a coal mine and is a major industrial project located in the pristine area in Southern Highlands which is predominantly agri-tourism and other service industries, such as vineyards, olives groves, boutique and luxury hotels and retreats and bed and breakfasts as well as the Morton National Park.<sup>1</sup> It was for this reason we decided to relocate from Sydney. We had spent 12 years living in Hong Kong and wanted a lifestyle change offering clean air and wide open spaces, in contrast to our lifestyle in Hong Kong, which was one of concrete towers, high pollution, and high traffic and noise levels. Every mine in the world impacts the surrounding community in terms of the water and air quality and noise.

### Impact on water

I understand the proposed Hume mine is located within the Sydney Water catchment area. A critical concern of my husband and I is the impact the mine will have on the groundwater resources and air quality in the area. I have read the Ground Water Study on the Hume Project: Sutton Forest Coal Exploration Licence EL 349 obtained on behalf of the Southern Highlands Coal Action Group in April 2014. This report indicates that proposed mine is situated in unique geology in that the Hawkesbury sandstone aquifer sits above the coal seam. It suggests the likely mined out underground area is approximately 34 square kms.<sup>2</sup> The groundwater study found that the as a result of this unique geology the water table for property closest to the mine will drop some 120 metres. This means local landholders relying on bore wells for irrigation and water supply will need to re-drill their bores. The Southern Highlands Coal Action Group (SHCAG) commissioned the groundwater study in 2014.<sup>3</sup> Over the life of the mine it is modeled that the water table drop of 120 metres will likely extend to some 180 square kilometres. This means a drop in groundwater may impact our property in the future.

<sup>&</sup>lt;sup>1</sup> See For Hume the bell tolls a report prepared by experts at the Australia Institute dated May 2017.

<sup>&</sup>lt;sup>2</sup> Economic Assessment of the Hume Coal Project., The Australia Institute, June 2016, p. 18.

<sup>&</sup>lt;sup>3</sup> Economic Assessment of the Hume Coal Project., The Australia Institute, June 2016, p. 17

This groundwater issue is the very reason that the community objected to the expansion of the Berrima Colliery. In that case, Boral withdraw the proposal and decided to shut down the mine after a 2 year legal battle.<sup>4</sup>

Due to its size (in comparsion to the Berrima Colliery) this proposed mine has an even greater potential to impact on the water resources located on our property and hence it future economic value. Some of the most valuable properties in the Southern Highlands are located near this mine. To say there will be no economic impact on property prices impacted by the water and air quality as well as noise defies logic. The Southern Highlands has seen a 15% increase in property prices in the last few years. This trend is unlikely to continue should a coal mine be established just a few kilometres from historic Berrima. It is more likely to defer increased residential population and further economic investment by the local community. Being self funded retirees we are extremely concerned the mine will depress property prices and that our residential home, as a key asset in our portfolio, with be devalued.

A further concern I have is that I understand that Posco plan to dispose of the tailings / polluted water by pumping it back into the underground mine. Coal direct from a mine has impurities like rocks and dirt that are removed through washing and treatment at a coal preparation plant. I understand that Posco plan to dispose of the tailings / polluted water by pumping it back into the underground mine. This has the potential to further pollute should the contaminated material leach into nearby rivers or back into the water table.

# Impact on traffic

The Hume coal mine will impact on the local region as the mine will operate 24 /7 and increase rail traffic by transporting the coal to Port Kembla. The local railways crossings in the Southern Highlands have very few bridge crossings, most are level crossings, which means increased traffic delays for residents traveling to commercial centres.

# Impact on Air Quality

My husband and I are extremely concerned in about the impact on the air quality of the stockpiles of the mined coal. I understand the Environmental Impact Study prepared by Posco, shows two stockpiles of coal approximately 800 metres long and six stories high. A conveyor belt will transfer the coal from the stockpile to loading facilities for shipment by train to Port Kembla. The prevailing winds in the area are from the West,North West. The stockpiles being open to the elements are subject to wind erosion and will allow coal dust to be blown over properties lying east of the mine including Exeter and Bundanoon. Of all the air pollutants produced by coal mining activities, particulate matter is the most

<sup>&</sup>lt;sup>4</sup> See Mining Operations Plan Rehabilitation and Final Closure Plan October 2015 prepaed by Boral

significant health threat. After living in Hong Kong for more than a decade we can attest to the air pollution caused by mining in China. When the wind blows the pollution over Hong Kong there are days when you cannot see across Victoria Harbour to Kowloon. I do not suggest that this circumstance will be the scenario here, however it is there is no threshold below which particle pollution exposure is not harmful to health (World Health Organisation). Health impacts are associated with both short-term and long-term exposure and include heart attacks and stroke. My husband suffers from Emphysema and any exposure to particulates has the potential to be detrimental to his health. Additionally there are a number of residential aged care facilities located in the Southern Highlands so there is a substantial community that will be detrimentally impacted by air pollution issues associated with this mine.

# Non-viable coal mine

Hume Coal, a wholly-owned subsidiary of Korean steelmaker POSCO. Korea is the third largest export market for coal with approximately 14% share of exports. I understand the mine would produce up to 3 million tonnes per annum of saleable product being coking coal for steel production and thermal coal for power production. The coal will be railed past New Berrima to Port Kembla (near Wollongong) and exported. In terms of size, 3 miliion tonnes per annum is a small mine, and one of very few underground mines in Australia.<sup>5</sup>

POSCO is a vertically integrated steel producer and it will probably be the primary customer of Hume Coal's production.<sup>6</sup> As such it is likely the company will take advantage of transfer pricing to minimize its Australian tax liability, if any. I note The Australia Institute models the profitability of the mine, "before consideration of external costs, which are potentially large, as having negative net financial benefits at a global level".<sup>7</sup> Which means Posco is unlikely to ever pay corporate tax in Australia as it will make losses rather than profits. The study shows the mine is unviable and should not be approved by the NSW Government.

The Australia Institute model shows the costs of the Hume Coal Project far outweigh its benefits, even before considering the costs associated with the loss of tourism to the region, existing businesses such as wineries, resorts, horse studs, accommodation, flora and fauna, transport issues with delays at level crossings, air quality and site restoration. The Hume Project should not be approved given the negative impact for the region.

Beltana in Singleton, NSW with 7.6 million tonnes per annum;
Broadmeadows in Moranbah, QLD with 4 7.6 million tonnes per annum;
Goonyella/Riverside in Moranbah, QLD is a combined underground / open cut mines with 11 million tonnes per annum.

<sup>&</sup>lt;sup>6</sup> Economic Assessment of the Hume Coal Project., The Australia Institute, June 2016, p. 9.

<sup>&</sup>lt;sup>7</sup> Economic Assessment of the Hume Coal Project., The Australia Institute, June 2016, p. 16.

### Posco's Reputation

The Norwegian Government Pension Fund Global (GPFG) has excluded Posco from its investment universe based on an assessment of the risk of severe environmental damage.<sup>8</sup> News articles refer Posco's Odisha Project in India and the forced removal of 22,000 Indian residents in forest dwelling communities that cultivate betel leaf to make way for Posco's planned steel plant and port.<sup>9</sup> The suspension was in response to an action taken by anti Posco supporters who filed a compliant to the OECD as to Posco's corporate behaviour. Amongst other issues the complainants cited that POSCO had not conducted due diligence or meaningful stakeholder negotiation regarding the human rights and environmental impact of its proposed project.<sup>10</sup> Posco is not a company with a good environmental track record and the NSW Government should view the Environmental Impact Study (EIS) prepared by Posco as a marketing pitch rather than a factual document that addresses the communities concerns. Posco has a track record of not behaving ethically, or with care for the environment.

I recommend the NSW government proceed with caution when relying on any assertions made by Posco in its EIS.

Water not Coal!

<sup>&</sup>lt;sup>8</sup> Norges Bank excludes POSCO and other companies from their pension fund due to risks of environmental damage; ESCR-Net, 17 August 2015.

<sup>9</sup> The Price of Steel: Human Rights and Forced Evictions in the POSCO-India Project

<sup>&</sup>lt;sup>10</sup> POSCO's Odisha project: OECD National Contact Point complaints and a decade of resistance.; June 2015