



**Trade &
Investment**



Office of the Director General

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V12/1059

Your Ref: 09_0093 Kane Winwood

Mr Neville Osborne
Manager - Energy
Infrastructure Projects
Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001



Dear Mr Osborne

Environmental Assessment for the Sapphire Wind Farm Project

Thank you for your letter of 22 November 2011 seeking comment on the Environmental Assessment (EA) for the Sapphire Wind Farm Project (the Project).

The Project raises no concerns from the perspectives of agriculture, forests, fisheries or energy.

From the Resources' perspective, the Department is concerned about the potential impact of the Project on mineral exploration and potential future mining as the area has been, and will continue to be, of interest to exploration companies (see attachment for detail). The EA indicates that the proposal has the potential to negatively impact on mining and mineral exploration. However, details of the potential impacts of the installation of turbines and cabling on mining and exploration activities are not included in the EA.

I am advised that Valbob Mining Pty Limited (holder of Exploration Licence 7796) has raised concerns with the Department about the impact the turbines will have upon their ability to effectively explore the licence area. There are similar concerns with potential sterilisation of resources with regard to the proposed bio banking sites.

The Department would expect that prior to the final determination of the project application the proponent commits to ensuring these identified issues and impediments to future exploration or operational activities are avoided or minimised.

Should you require further information regarding these matters, please contact either Gary Burton, Senior Geologist, Orange office, on 6360 5330 (gary.burton@industry.nsw.gov.au) or Cameron Ricketts, Assistant Director Minerals and Land Use Assessment, Maitland office, on 4931 6703 (cameron.ricketts@industry.nsw.gov.au).

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Mark I Paterson'.

Mark I Paterson AO
Director General

5/3/12

Sapphire Wind Farm Project Environmental Assessment

Comments from the Division of Resources and Energy

The Environmental Assessment states that the proposal has the potential to negatively impact upon mining and mineral exploration. Although the proponent has attempted to contact mineral title holders in the subject area to garner any concerns they may have with the proposal, in accordance with the Director General's Requirements, the importance of the area for its mineral resources is not acknowledged.

The Kings Plains area has been a major province for sapphire production throughout the 1980s and 1990s, constituting New South Wales' most important source of sapphire. While production has been reduced in recent times the area continues to attract interest from mineral explorers. Although the future of the sapphire market is unknown, there always remains the possibility that it may be reinvigorated within the next 20 years (the approximate life time of the proposed wind farm). The metallic mineral potential of the area is also of interest, indicated by the recent granting of exploration licences for Group 1 minerals in the region.

In the proponent's communications with mineral title holders in the area (refer to attached Figures 1 and 2), only four out of nine responded. Volcan Australia Corporation Pty Ltd had no objection to the turbine placement but it must be noted that no turbines are proposed to be erected upon any of their tenements. Many turbines are proposed to be built upon the area covered by EL 7796, held by Valbob Mining Pty Ltd. That company has indicated to this Division that they have concerns about the impact that the turbines will have upon their ability to effectively explore the licence area. Pan Gem Resources (Aust) Pty Ltd have no concerns with turbine placement, as none occur within their tenement ALA19, but there are issues with proposed bio banking areas being considered as part of the development proposal (see below). Parnosa Pty Ltd, which holds tenement EL7669, did not respond although many turbines are proposed to be located upon that tenement.

Different companies conduct mineral exploration in different ways and companies vary in their ability to conduct effective mineral exploration. The process is an ongoing and iterative one and is dependant upon concepts of mineral systems, application of appropriate technology and the prevailing economic situation, all of which change with time. Individual companies are subject to their own budgetary and staffing situations and overarching company strategies which will affect the type of exploration they carry out and the priority which they place upon a particular mineral tenement. However, the mineral potential of an area is more constant in nature, regardless of which company happens to currently hold the exploration ground or the current economic climate.

The role of the Resources & Energy Division of NSW Trade & Investment is to ensure that the state's mineral resources are managed responsibly. To this end, Resources & Energy Division have undertaken a resource audit across

New South Wales, on a shire by shire basis, in response to Direction G28 (now 1.3 – Mining, Petroleum Production and Extractive Industries), under Section 117(2) of the *Environmental Planning and Assessment Act 1979*. The information, which is based upon the best available geological data at the time, is provided to local council and the Department of Planning and Infrastructure. It indicates the locations of identified resources, potential resource areas and transition areas. Identified resources comprise significant operating or proposed quarries or mines and undeveloped defined resources. In the case of operating and proposed mines subject to mining titles, the mining leases are used to define the boundaries of the resource. Potential resource areas comprise either deposits whose potential has not yet been fully assessed or areas that have high potential for the discovery of mineral resources, based upon current knowledge. For operating and proposed quarries and mines, an adjacent area (“transition area”) where development may conflict with current or future mining or quarrying operations is also generally identified. These transition areas are indicative of the areas that may be subject to significant impacts from mining or quarrying operations.

The draft Section 117 mineral resource advice for Inverell Shire is presented in attached Figure 3, overlain upon the proposed wind farm area. The proposed wind farm area overlaps with the Kings Plains Potential Resource Area, an area prospective for sapphire. It also overlaps with the Frazers Creek Alluvials and the Swan Brook Potential Resource areas, also prospective for sapphire. Some turbines are proposed to be placed within the Apple Tree Gully No.1 Identified Resource Area (sapphire and ruby). Turbines are also planned to be situated within the Narran Vale Identified Resource Area (sapphire, corundum and diamond). The proposed area also includes the Yarrandoo Identified Resource Area (sapphire, corundum and zircon) and the Kew Identified Resource Area (sapphire).

The proponent has indicated that the development would adversely impact upon mining and mineral exploration in the area (p256) but does not provide any detail as to what the impacts would be. The Resources & Energy Division considers it most probable that the turbines and cabling would be impediments upon drilling and geophysical surveys, both airborne and ground based. They would also be obstacles to any future mining. The Resources & Energy Division therefore insists that any turbines and associated cabling that are proposed to be emplaced over any identified resource or potential resource area be relocated to sites outside of those areas in order to avoid potential sterilisation of resources. The Division is also extremely concerned about the ability of Valbob Mining Pty Ltd to be able to effectively explore EL 7796 for Group 1 minerals given that the development proposal includes a series of turbines stretching the entire length of the exploration licence from north to south.

With regards to the bio banking areas, there are similar concerns with potential sterilisation of resources. The attached Figure 4 shows three proposed bio banking areas in relation to the Inverell Shire draft mineral resource Section 117 advice. The southern area falls totally within the Kings Plains Potential Resource Area. Robert Coenraads of Australian Gemstone

Resources Pty Ltd has also noted this as an issue in his correspondence to the proponent. The two northern areas just overlap with the Kings Plains Potential Resource Area. The 195 ha area falls within the western part of mineral title ALA19 (attached Figure 5), as also pointed out by Robert Coenraads in his correspondence to the proponent.

The Division strongly suggests that alternative biobanking sites are investigated which are not located within existing mineral titles, or areas with significant mineral values.

In conclusion, we consider that the potential impact of the proposed wind farm, in its current form, on mineral exploration and potential future mining within this highly prospective area is of great concern.

Should you require further information regarding these matters please contact either Gary Burton, Senior Geologist, Orange office, on 6360 5330 (gary.burton@industry.nsw.gov.au) or Cameron Ricketts, Assistant Director Minerals and Land Use Assessment, Maitland office, on 4931 6703 (cameron.ricketts@industry.nsw.gov.au).

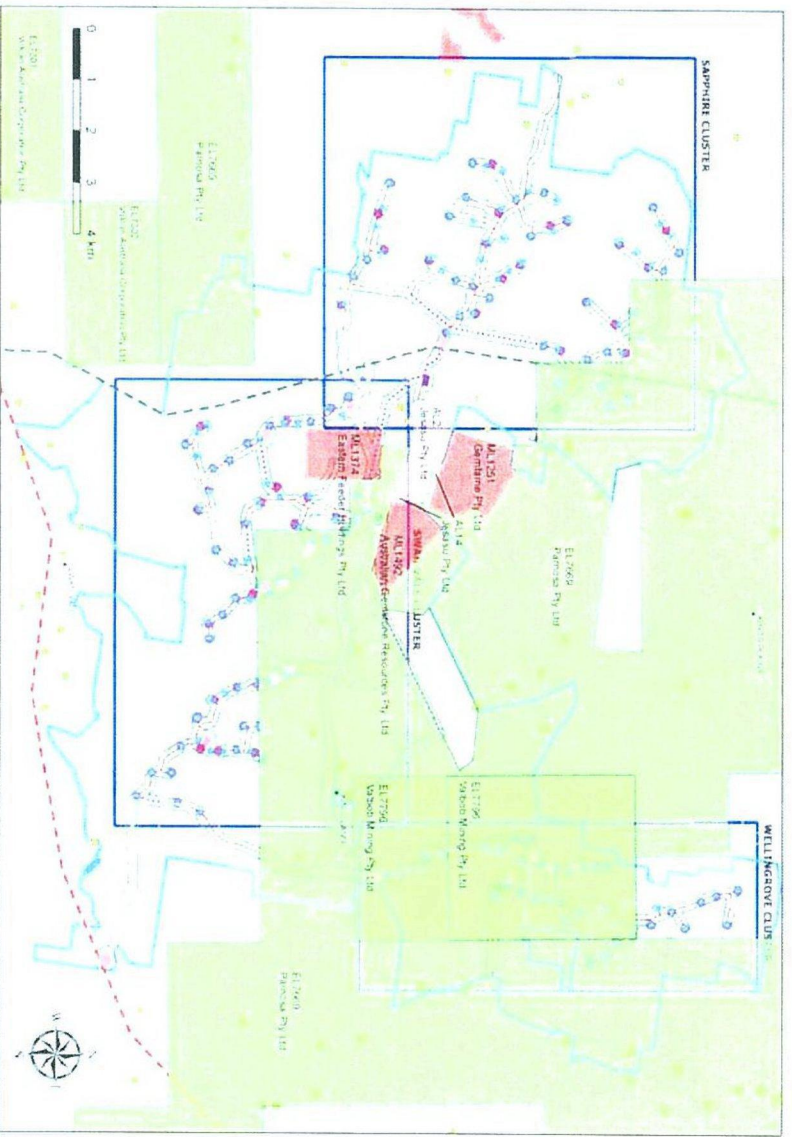


Figure 1. Wind farm area with current mineral tenements

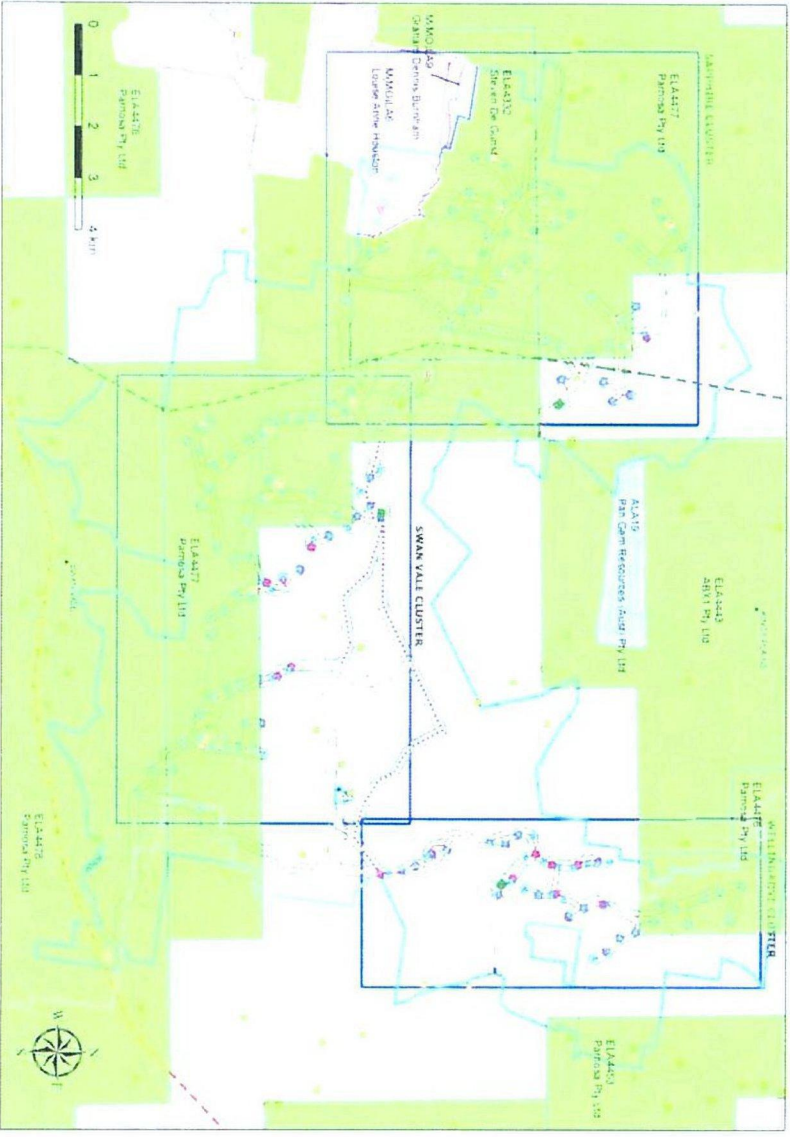


Figure 2. Wind farm area with mineral titles applications

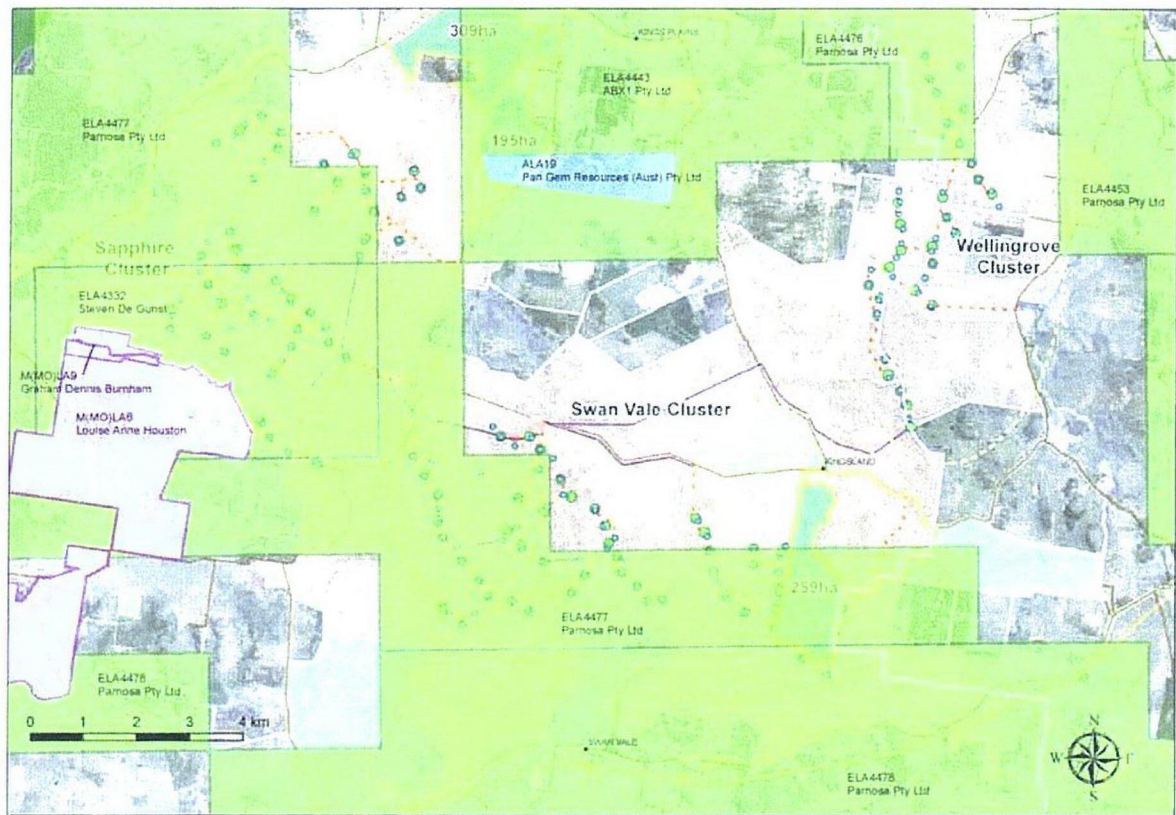


Figure 5. Bio banking offset areas with mineral titles applications