

## **Independent Planning Commission**

### **Objection**

#### **Hills of Gold Wind Farm SSD-9679**

A comparison of the vegetation cover of the area encompassed by the Hills of Gold Wind Farm project area and the project footprint shows a considerable loss of vegetation cover particularly since 2008.

A significant amount of clearing both authorised and unauthorised has occurred in the area of the Hills of Gold Wind Farm.

As a long-time resident of the district with 40 years' experience of the area surrounding the proposed wind farm it is obvious that the clearing that has occurred has contributed to the increased speed and velocity of run off after even modest rainfall events. Surface erosion has increased, and moisture absorption and subsoil water has decreased.

This is having the effect of reducing the availability of underground water to maintain stream flows between rainfall events.

The importance of the water inflows into the Peel River from the top of the catchment where the wind farm is proposed cannot be understated. The Upper Peel River is also an important contributor to the Murray Darling Basin system and the wider regional implications must be considered in the process of evaluating the merits of an industrial development in areas that contribute up to 80% of downstream flows.

To quote Professor Martin Thoms (Professor of Physical Geography, UNE):

*1. The area of development is within a region of NSW that contains sensitive and endangered ecosystems. There has been scant recognition of this fact and the implications of the construction and on-going operation of the wind farms on these ecosystems.*

*The upland region where this proposed development is planned contains an array of sensitive Upland Aquatic Ecosystems – some of which the NSW Government have classified as endangered ecosystems. These ecosystems are sensitive to both natural and human disturbances.*

*These sensitive and endangered aquatic ecosystems have not been documented or considered in the environmental documents associated with this development.*

*Typical Upland Aquatic Ecosystems, include headwater streams, wetlands, swamps, and bogs, are important for several reasons:*

- *Water generation: Headwater streams are the significant source of much of the water in larger streams and rivers. In the Murray Darling Basin, typically headwater regions generate up to 80% of the runoff to downstream areas.*
- *Water quality: These ecosystems play a critical role in maintaining the quality of downstream water resources by filtering sediments, excess nutrients, and other pollutants.*

The vegetation removal has increased the surface erosion and promoted many minor land slips during the 2020-2022 high rainfall period increasing the sediment inflows to the Peel River with the associated turbidity and phosphorus content negatively affecting water quality.

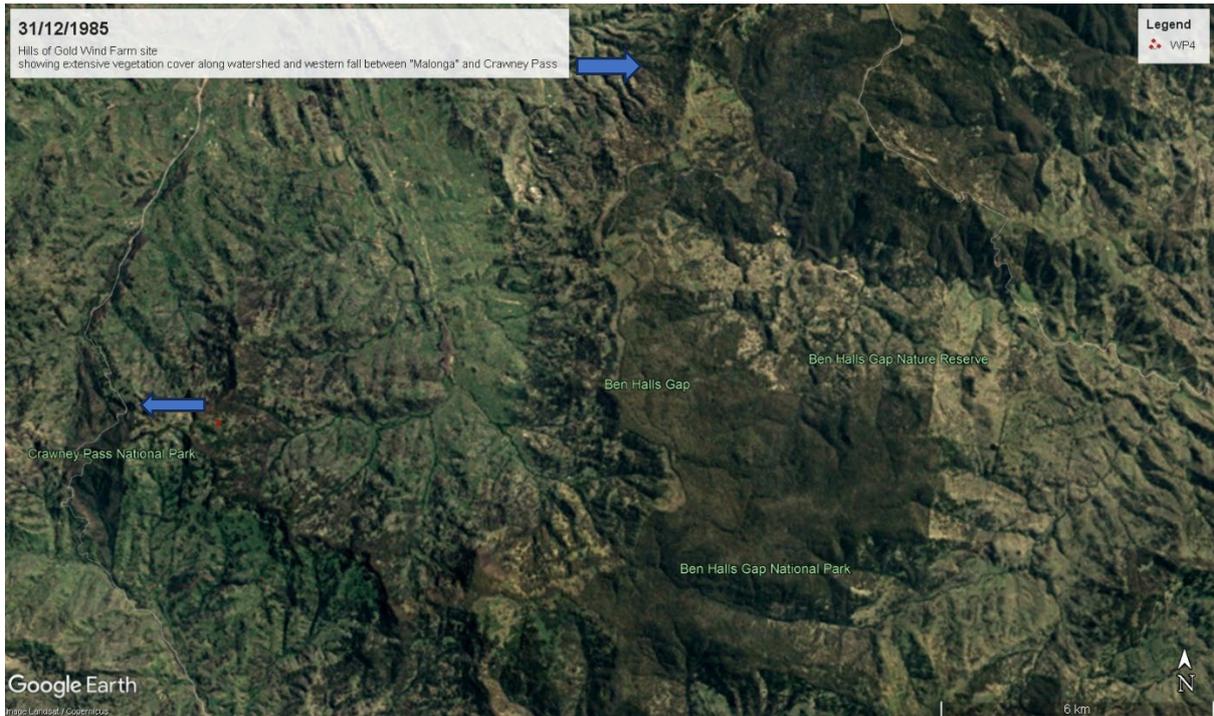
The lack of vegetation also increases the risk of major mass movement events without the stabilising effect of vegetation cover. Vegetation cover also slows down the water movement and enhances the ability of the moisture to penetrate into the strata. The water holding ability of the basalt soil and geotechnical structure of the mountain act as another water storage for Tamworth City and compliments the water availability for the Upper Peel River and as a consequence the Murray Darling system. In other words, a second dam on the Upper Peel River.

As well as the impact of vegetation removal, the concrete surfaces, compaction for hardstands and roads will inhibit the moisture absorption of the site. The need for dewatering of the site will also have a negative effect on long term and slow water release into the Peel River.

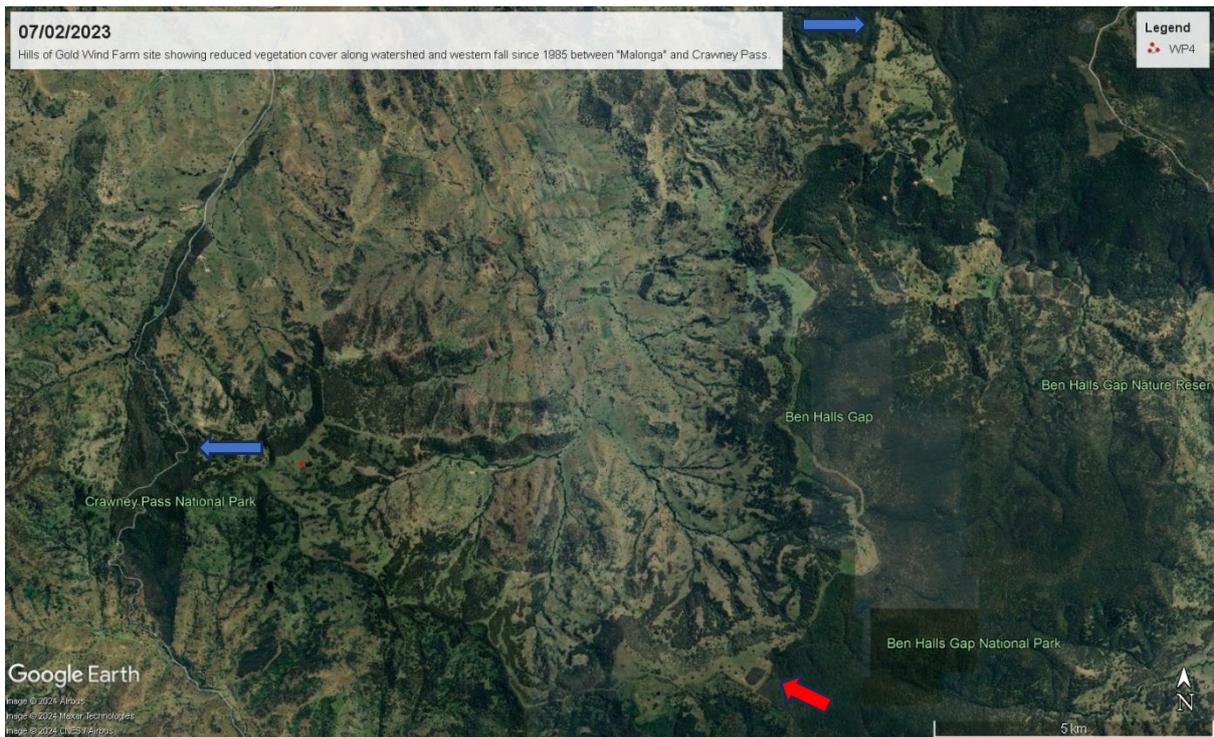
Much of the project area was heavily timbered pre 2008 with rare and unique ecosystems that can only exist in that location. Some the tallest snow gums (eucalyptus Pauciflora) outside the Snowy Mountains have been removed from the project site.

In view of the importance of the head of the Peel Catchment to Tamworth City Water supply, the Namoi River and the Murray Darling Basin the area should be revegetated with the species that are endemic to the location.

The area concerned is between E31.5336-S151,1811 and E31.5952-S151,0669 and above 1150 metres. This is the watershed and western fall between "Malonga" and Crawney Pass.



Hills of Gold Wind Farm site showing the extent of vegetation cover along the watershed and western fall between ‘Malonga’ and Crawney Pass 31/12/1985.



Hills of Gold Wind Farm site showing reduced vegetation cover along the watershed and western fall since 1985 between ‘Malonga’ and Crawney Pass 07/02/2023.

Note cleared square bottom centre, which was old growth snow gums, eucalyptus Pauciflora.