

Our Ref: WML Darling Scarp Fault Rev B
Your Ref:



7 April 2021

Attention: Sally Carlton

Cleanaway

Lot 2, Banksia Road

Dardanup, WA 6236

Dear Sally

Regarding your query about the geological fault near your site.

The Darling fault is mapped from gravity data and is shown to be 1680m away from the easternmost end of the site.

As the decomposition and stabilisation of waste may take many decades, landfills are generally constructed in areas where the landform is stable, thereby enabling the landfill cap and liner system's long-term integrity. One potential impact on this stability is that of earthquakes. While Australia is considered a seismically stable continent, earthquakes do occur, albeit infrequently. A reasonable degree of assurance of the long-term protection of the landfill from an earthquake is to avoid sites within 100 meters of a fault line displaced in the Holocene period (the most recent epoch of the Quaternary period, extending from the end of the Pleistocene Epoch — about 10,000 to 12,000 years ago — to the present).

For comparison The Darling Scarp Fault was formed over 540 million to 1.6 billion years ago and is a major geological boundary separating the Archaean Yilgarn Craton in the east from the younger Pinjarra Orogen to the west. The Darling Scarp fault is still associated with some seismic activity. However, the southwest is not considered highly active, and most seismic activity in the area is related to the Wheatbelt. Figure 4 appended to this report shows the low peak ground acceleration (due to seismic activity) in the Bunbury area compared to the wheatbelt.

Figure 1, 2 and 3 appended to this report include geological map data, showing the location of the site in relation to the Darling fault line.

Yours faithfully,

A handwritten signature in black ink, appearing to read 'Simon Maris', is written over a light blue horizontal line.

Simon Maris
Principal Geotechnical Engineer

Attached

WML Consultants Pty Ltd

ABN 36 092 471 531

Level 3

1 Prowse Street West Perth WA 6005

(08) 9722 3566 wml@wml.com.au

wml.com.au

- Site Photographs
- Site investigation plan drawing

References

- Geological Series Map 1:250,000 Scale
- AS 1726:1993 – Geotechnical Site Investigations
- Atlas of Seismic Hazard Maps of Australia, 2013



Figure 1: Darling fault line (Dotted Black Line) separating the Archaean Yilgarn Craton in the east from the younger Pinjarra Orogen to the west

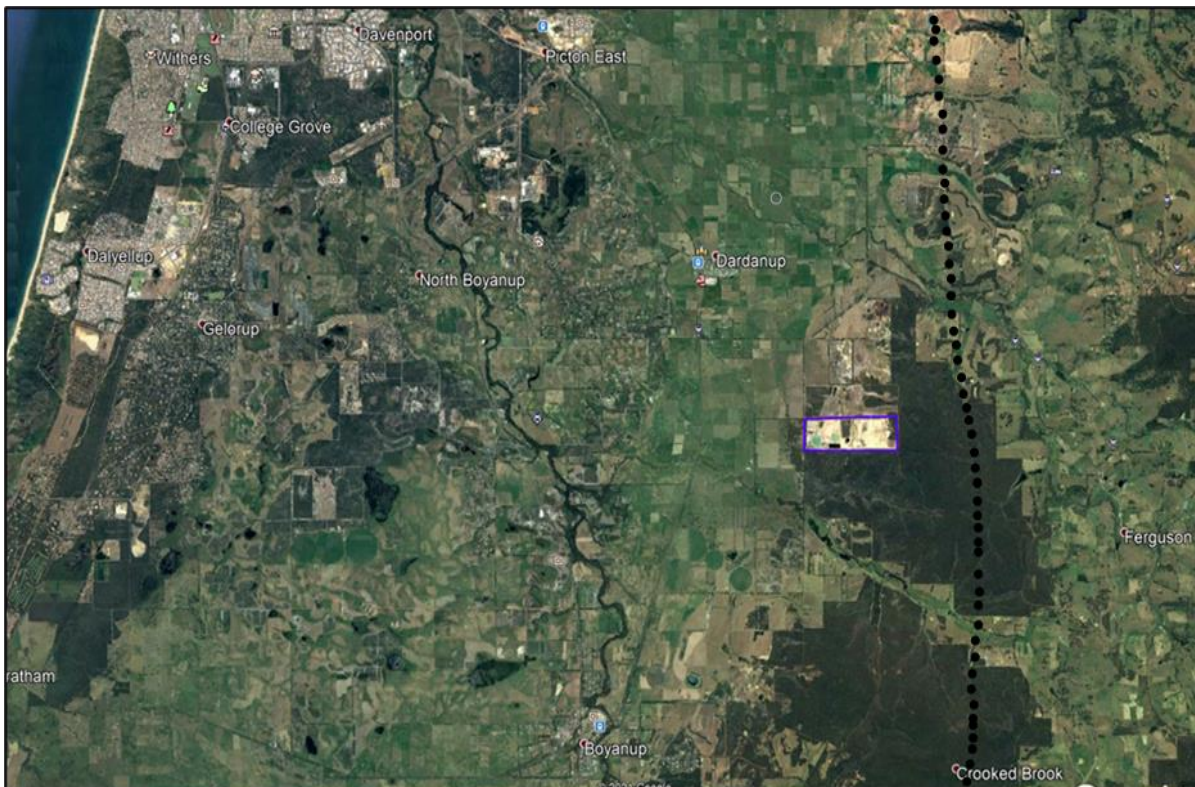


Figure 2: Google map of Darling fault line as mapped (Black dotted line)

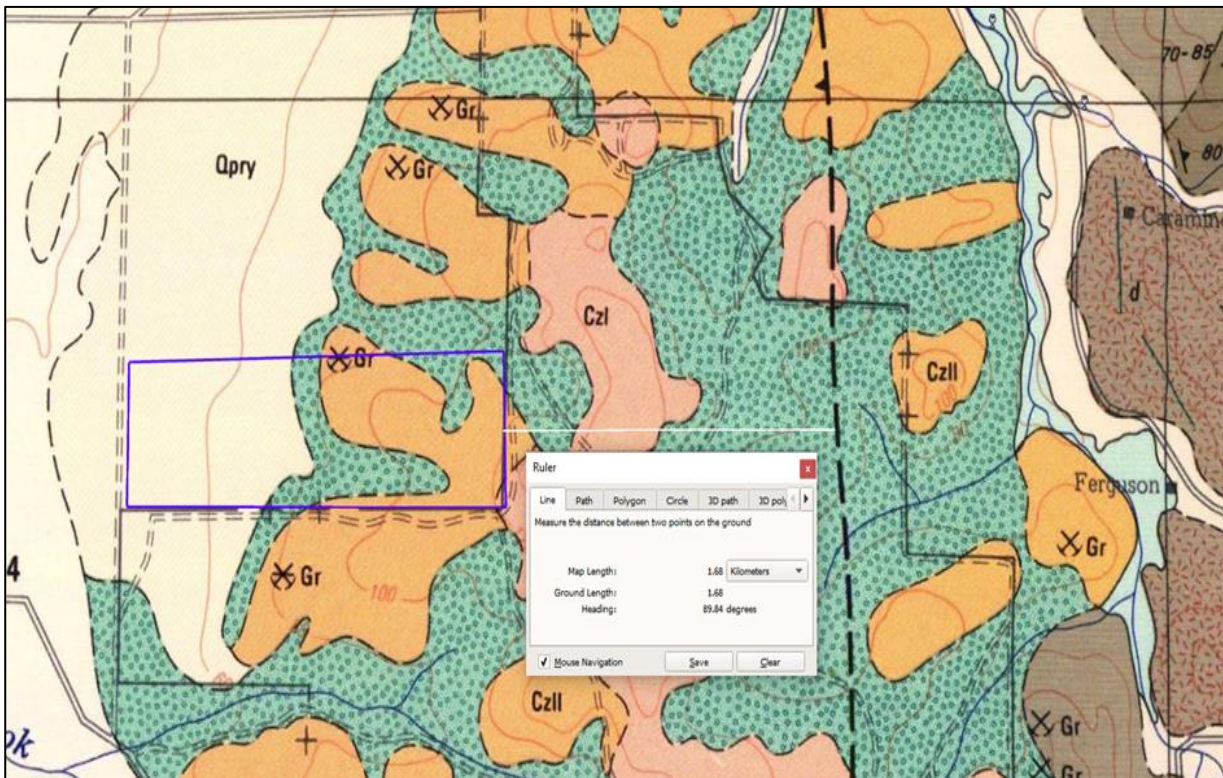


Figure 3: Geological map of Darling fault line (dotted black line on the map)

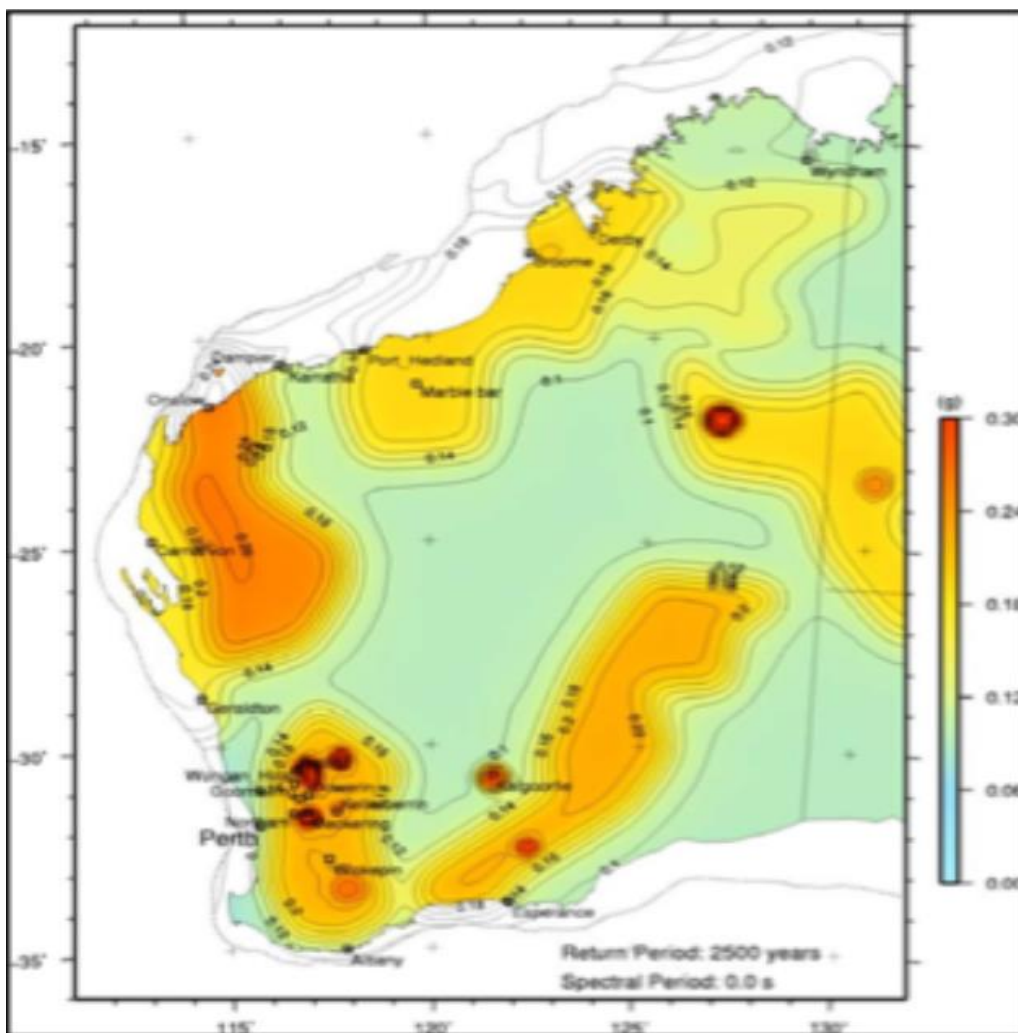


Figure 4: Peak Ground Acceleration(PGA) in g units for a 1 in 500 year return period (Leonard M et al., 2013)