

The Landscape of Hopetoun



- how it was made over a long time.

Until about 6,000,000 years ago



This land was under the sea floor—
giving our land its sandy soils.

About 4,000,000 years ago



The sea started to retreat to the west –
leaving sand dunes at the beach.

By 3,500,000 years ago



The sea has retreated to the west –
leaving lines of sand dunes.

By 1,000,000 years ago



Down south the sea floor was lifted up—
forming the Grampians mountains.

By 1,000,000 years ago



The Grampians tilted land in north down—
so water in streams runs north.

About 1,000,000 years ago



The streams ran north between the dunes—
making floodplains with shallow lakes.

Since 1,000,000 years ago



With a drier, colder climate and westerlies - the shallow lakes dried and made lunettes.

Since 1,000,000 years ago



This drier, colder, climate with westerlies -
blew out dunes in the Big Desert.

Then 50,000 years ago

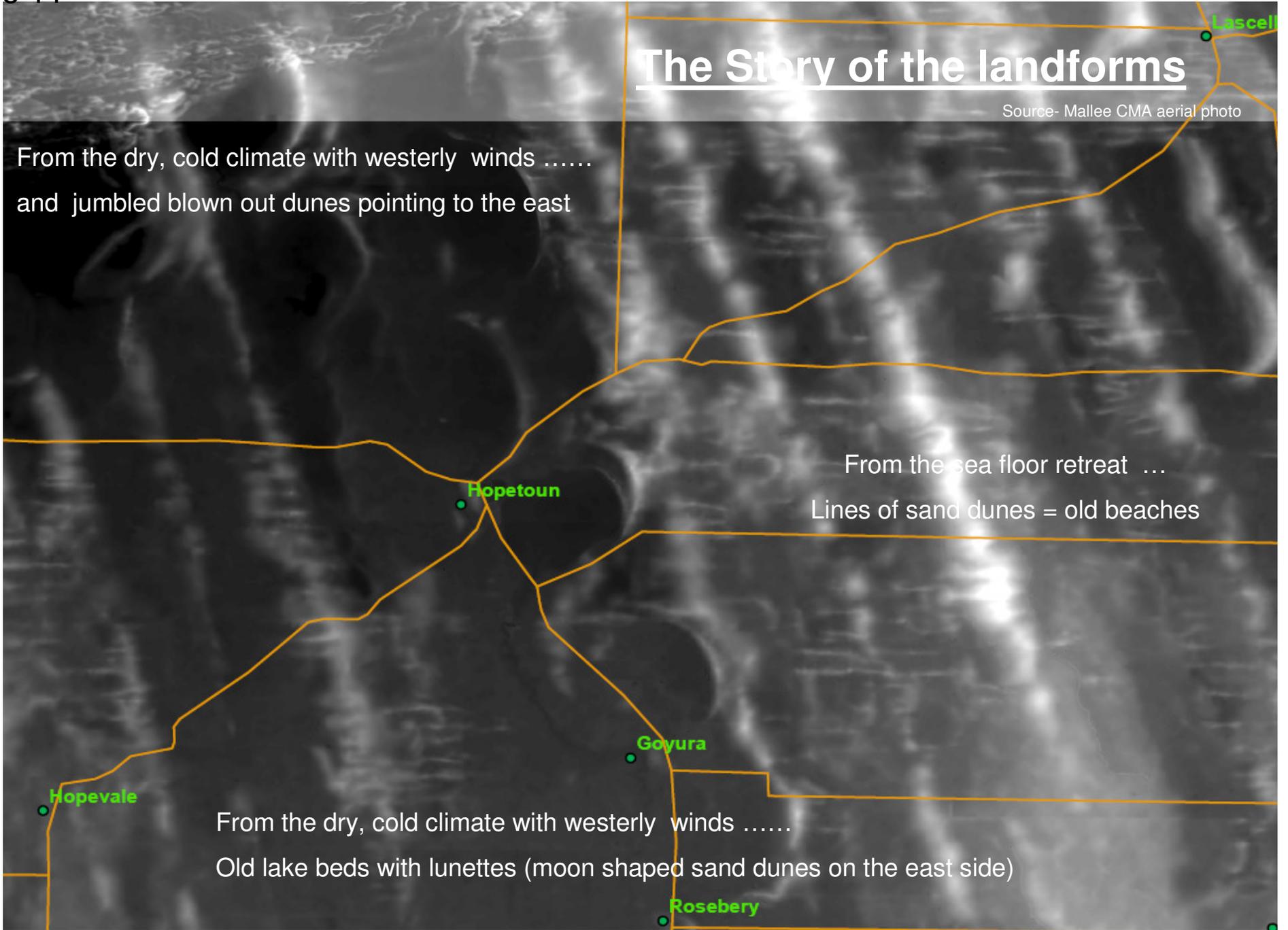


The climate became wetter and warmer
- streams laid clay soils on floodplains.

Questions

Do you now know:

- 1 Why so many of our soils are sandy?
- 2 Why there are so many sandy hills running in the same direction (see photo from the air next page)?
- 3 Why there are sand dunes on the east side of lakes (see photo from the air next page)?
- 4 Why there are jumbled sand dunes in the Big Desert area (see photo from the air next page)?
- 5 Why there are clay soils close to the Yarriambiack Creek's current and old floodplain?
- 6 What these words mean: westerly, lunettes?
- 7 What the history of your farmland is?



The Story of the landforms

Source- Mallee CMA aerial photo

From the dry, cold climate with westerly winds
and jumbled blown out dunes pointing to the east

From the sea floor retreat ...
Lines of sand dunes = old beaches

From the dry, cold climate with westerly winds
Old lake beds with lunettes (moon shaped sand dunes on the east side)

Glossary

Clay soils	very fine soils from flooding
Floodplains	flat land alongside a stream which can flood
Lunettes	moon shaped sand dunes that formed on the east side of dry lakes
Retreated	to go back from (sea drains off land)
Sandy soils	very coarse soils from sand
Westerlies	blow from the west to the east

Further Reading

Wimmera CMA, *'Listening to our LANDSCAPE... a Wimmera evolution story'* DVD 2008,
Murray Darling Basin Commission *"Living in Floodplains"* Ch 3 from www.mdbc.org.au

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Reference

The information from this “*History of the Hopetoun area Landscape*” mainly came from the Wimmera CMA’s DVD *Listening to our LANDSCAPE... a Wimmera Evolution story*” DVD published by the Wimmera CMA in 2008.

Acknowledgements

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