

Summer Edition 2022

Editorial -

SA has a significant investment in renewable energy across the State. A drive to Port Augusta will confirm the former coal powered region is now the renewable energy capital, with massive solar and wind installations being constructed. Along with this, the commencement of the construction of the SA - NSW inter-connector power line. This will power the race to develop more renewable sources in SA to tap in and provide green energy to the power-hungry eastern state.

Our Newsletter today continues on this theme of renewable green energy, with a big picture overview of the Snowy 2.0 Hydro Expansion project. It's going to be like a giant battery ready to be switched on at a moment's notice. Just another piece of the renewable puzzle.

Surveying will be a key to this project's success.

Surveyors will keep the many kilometres of tunnels aligned, to ensure the new power station is built in the right location with the tight tolerances it will need. It's a very exciting project being built in some very harsh but beautiful conditions.

As well as hydro power, we also talk about the natural beauty of waves and the chase to harness the potential power they can release.

And closer to home there is some quiet, but significant changes to the data exchange between Surveying firms and Land Services SA (LSSA) - Lands Titles Office. Read on to find out about this "Revolution"

Enjoy the Fringe and the Festival.

Footy is not far away!

Ed - Michael

Visit the **Michael Grear Surveys website for more information and past issues of The Survey Datum @ www.mgsurveys.com.au**

Quote Hardships often prepare ordinary people for extraordinary destiny.

- C S Lewis

Snowy 2.0

Snowy Hydro's expansion- Snowy 2.0; expansion of the Snowy Scheme.

Snowy 2.0 is both an engineering feat and vast energy making concept after the original Snowy Hydro Scheme being developed 70 years ago.



With the linking of two existing dams (Talbinga and Tantangara) through underground tunnels, water will pass from one to the other driving turbines making electricity. Hydro electricity is formed when falling water turns huge turbines. Near the lower dam (Talbinga), a power station is to be built almost 1km underground. Renewable energy (excess wind and solar) will be used to pump water back to Tantangara dam to be used in this process again.

No impact on downstream systems or the use of extra water is a promise we in SA like to hear.

The plan is that this can fill the gap when solar or wind energy are not available.

When in full production, the amount of electricity formed would power 200 million LED light bulbs at the same time. With energy on demand, this would provide a quick turn around for making electricity when demand is high.

There has been some discussion with regard to the claimed amount of electricity that this new scheme will produce.

Watch this space, as construction has begun with completion date in 2027.

Pictures c/o Snowy Hydro.

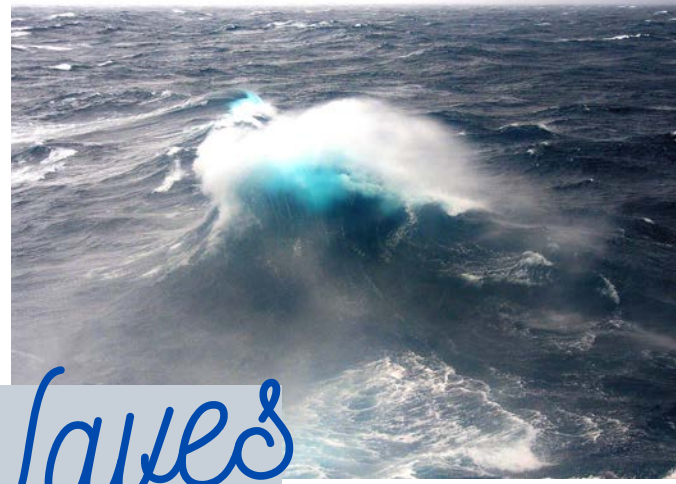
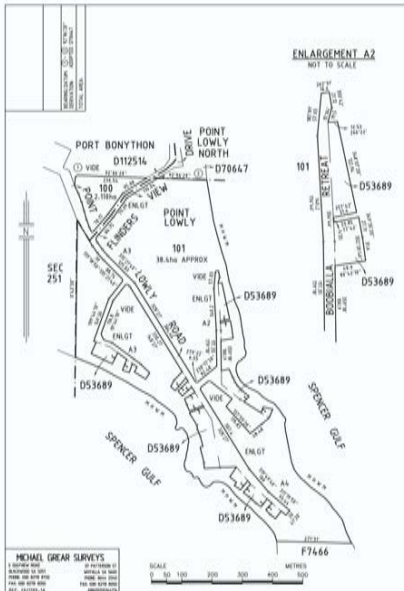
More information <https://www.youtube.com/watch?v=VwoJmtm47aY>

We Have A Revolution!

There is a small revolution happening, in the background between Surveyors and the Lands Titles Office (Now run by Land Services SA (LSSA)). This is to do with plan format. Presently, all survey plans lodged are a tiff or PDF image. From the 21st April 2022 all survey plans lodged will be in an accurate surveyed model suitable CAD (Computer Aided Drafting) software format.

This may not seem ground breaking, but supplying the data this way is a game changer. It will allow for automatic drafting and checking tools to be added, improving the quality of plans supplied; using that data for a broad range of uses including updating the Digital Cadastral Data Base and automatic generation of images through the SAILIS website.

Very cool looking and an effective tool to be used moving forward. We're excited!



Waves

The pull and tug that is experienced by our world as it rotates on its axis and circles our sun has much to do with our change of seasons, weather highs and lows and the shifts in our earth's crust causing tremors and eruptions.

While walking along our coast recently, watching the waves; it did make me ponder, why are there waves.

Some 'fun facts' about waves. Waves are most commonly caused by wind.

- The faster the wind blows (as in a strong storm out at sea), the bigger the waves will grow.
- The further the wind blows (or the bigger the area of the storm), the bigger the waves will grow.
- And the longer the wind blows (as in a storm that lasts a long time), the bigger the waves will grow.
- If the wind stops, or changes direction, the waves will stop growing, but they won't stop travelling.

Waves as an energy source.

Strong Southern Ocean winds generate consistently large waves which travel northwards to Australia's southern coastline. The large consistent swell provides ideal conditions for wave energy production.

CSIRO research shows that wave energy could contribute up to 11 per cent of Australia's energy (enough to power a city the size of Melbourne) by 2050

Australia has a great wave resource.

Waves are amazing; both calming and dramatic. At the whim of the wind, with power to harness!

Where is the Longest Tunnel Competition From Last Edition

The longest Tunnel is the World is Delaware Aqueduct at 137km. This tunnel supplies water for 50% of New York City. Some may dispute that an aqueduct is a tunnel but we are accepting this answer for our competition.



The longest road tunnel is Gotthard Base Tunnel. It runs under the Swiss Alps between the towns of Erstfeld in the north and Bodio in the south. The tunnel is 57 km long and reaches a depth of 2,300 meters. It is actually the longest and deepest tunnel!

Brainteaser...



How do you cut a circular cake into eight equal pieces with only three cuts?

Think you might know?

Contact our Admin Team with your answer and they'll send you a prize for joining in the fun!

Try the scan



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