

LEX LOCI'S TRAVELS

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An ad-hoc one-pager from The Public Land Consultancy

Lex contemplates Gravity at the Trawool Reservoir

Lex knows about gravity. That's what makes water flow downhill. Unless of course it's pumped, or in a rising main – as invented by the ancient Romans.

The business of water going uphill and downhill has attracted new attention – as renewable energy engineers contemplate pumped hydro. When there's excess sun-based or wind-based energy, water gets pumped uphill to a reservoir; when there's not, it gravitates back down, driving generators.

Here's the interesting bit. Unlike the more familiar water-supply storages, these dams need not have catchments. Certainly not nice clean catchments. Their only necessary characteristic is elevation. The greater the elevation, the more gravity-driven power can be extracted from them.

Which brings us to Trawool Reservoir. Constructed in 1895 on Crown land permanently reserved for water supply purposes, it once supplied drinking water to Seymour. Superseded and abandoned, it still holds 100 mega-litres of water, some 260 metres above the floor of the Goulburn River.

It seems this equates to 36 Megawatt-hours (MWh) of energy *. Not Hazelwood, perhaps, but Lex wonders how many other Trawools there are across the State, and what their combined generation capacity might be.

These schemes are not territory for big business. As small-scale plants, often occupying multiple-use public land, we are surely looking at management by local government or community groups – presumably in partnership with some wind or solar power generator.

Meanwhile, Lex is heading back to school to figure out the difference between a watt, a joule and a newton.

See you there! Lex Loci

* Melbourne Energy Institute, University of Melbourne, July 2017, *Pumped Hydro Electric Storage for Euroa and Seymour*



Not all abandoned water storages are best suited for pumped hydro.

Above, the citizens of Paddington (Sydney) relax in their recycled reservoir.